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Dr. Diane Eynon  
Michael J. Ham  
Richard O. Jones  
James Malcolm  
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**GOVERNANCE COMMITTEE**

September 1, 2021 – 12:30 PM  
Legislative Chambers  
County Office Building, 6<sup>th</sup> Floor  
244 Fair Street, Kingston, NY 12401

**MEETING AGENDA**

1. Call to order
2. Pledge of Allegiance
3. Roll call **(page 2)**
4. Approval of minutes of the June 22, 2021 meeting **(page 3)**
5. Public comment on agenda items only
6. Old business
  - a. Mentoring Program update
  - b. Amendment to Enforcement of Agency Projects **(page 8)**
7. New business
  - a. Policies to be created
    - i. IDA fees shared with CRC **(page 17)**
    - ii. Cost Benefit Analysis Policy
  - b. Policies to be amended
    - i. UTEP and Matrix **(page 18)**
8. Adjournment

The mission of the Ulster County Industrial Development Agency is to advance the job opportunities, general prosperity, and long-term economic vitality of Ulster County residents by targeting tax incentives, bonding and other assistance to foster creation and attraction of new business and the retention and expansion of existing business.

# Item 2.

## Roll Call

	<u>Present</u>	<u>Absent</u>
Michael J. Ham, Committee Chairman	_____	_____
Diane Eynon	_____	_____
Richard O. Jones	_____	_____

# UCIDA

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Ulster County Industrial Development Agency

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## ULSTER COUNTY INDUSTRIAL DEVELOPMENT AGENCY GOVERNANCE COMMITTEE MINUTES June 22, 2021

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A meeting of the Governance Committee of the Ulster County Industrial Development Agency was held on Tuesday, June 22, 2021, at 11:11 A.M. via Zoom.

### **Roll Call:**

The following committee members were present:

Michael J. Ham	Committee Chairman
Richard O. Jones	
Diane Eynon	

The following committee members were absent with notice:

The following additional Agency members were present:

Rose Woodworth	Chief Executive Officer
A. Joseph Scott, Esq.	Agency Counsel

The meeting was called to order at 11:11 A.M. by Committee Chairman Michael J. Ham.

### **PLEDGE OF ALLEGIANCE**

The members of the Agency participated in the Pledge of Allegiance to the flag.

### **ROLL CALL**

The roll was read, and it was noted that a quorum was present.

### **APPROVAL OF MINUTES**

The members of the Committee reviewed the draft minutes from the April 6, 2021 meeting.

**Motion:** Richard Jones, seconded by Diane Eynon, moved to approve the minutes of the April 6, 2021 Governance Committee meeting.

**Vote:** The motion was unanimously adopted (3-0).

### **OLD BUSINESS**

#### **Ulster NH Realty**

Agency Counsel, Joseph Scott, sent a letter to Ulster NH Realty for compliance issues. No response has been received. The Committee discussed the Project's non-compliance during 2020 and the failure to appear before the Board on three separate occasions to discuss the issues. In light of no further information provided by the Project, the Committee made a decision to move forward with a formal recommendation for the Board.

**Motion:** Richard O. Jones, seconded by Diane Eynon, made a motion to recommend that the Board sign a resolution to put Ulster NH Realty back on the tax rolls without initiating a claw back of the benefits already received.

**Vote:** Then motion was unanimously adopted (3-0).

#### **FOIL Policy**

A draft FOIL Policy was reviewed, and recommendations on changes to the Policy were discussed by the Committee and Agency Counsel. Counsel will have clarification for the Board as to what "making copies" means with current technological practices.

**Motion:** Richard O. Jones, seconded by Diane Eynon, made a recommendation to bring the FOIL Policy as revised by Hodgson Russ to the full Board as well as adding in language that clarifies that the first ten pages of a FOIL will not be charged.

**Vote:** The motion was unanimously adopted (3-0).

## **NEW BUSINESS**

### **Star Estate – Failure to pay PILOT payments**

The CEO spoke about Star Estates' failure to pay the PILOT tax payments. Highland School District is asking the IDA to assist with getting the payment. An email was received during the meeting from Star Estates that they had made their payments. The CEO will follow up with the taxing jurisdictions to ensure payments were made.

### **Mentoring Program Update**

Agency Counsel advised adding some of the language from the end of the application as well as adding a schedule with a copy of the annual reporting documents that are currently required from projects. The Committee also discussed adding information about designating a fiscally responsible person and the possibility of a project using the 485(b) instead of IDA incentives. A recommendation was made to bring this to the July\_21, 2021 Board meeting and then looking for a marketing company to put together a "tool kit" to assist potential applicants. There was also a brief discussion about creating a required training for annual reporting in November.

### **Policies to be Created**

#### **Policy for Return of All or Part of Financial Assistance and Policy for Suspension, Discontinuance, or Modification of Financial Assistance**

The Committee (with Counsel's guidance) determined that the Agency's Enforcement of Agency Projects Policy already encompasses both of these required policies. The CEO recommended updating the policy to memorialize claw-back percentages for each year of a PILOT as well as the procedure for identifying and reporting project with performance-based incentive deficiencies. The Committee agreed with the CEO's recommendations and asked that all the appropriate changes be made so a potential finished product could be brought back to the Committee for approval.

#### **Resolution Approving Public Comment Policy for Meetings**

The Committee felt it was important that the Board have information or comments before voting so they agreed to copy the Suffolk County IDA's Policy Regarding Public Comments at Agency Meetings with clarification that all public comment must be regarding agenda items only.

**Motion:** Diane Eynon, seconded by Richard O. Jones, made a motion to create a Public Comment Policy with the proposed language and bring the recommendation to the Board.

Richard O. Jones requested that the language in the Suffolk County IDA policy also be changed to allow for up to five minutes per person (at the Chair's discretion).

Diane Eynon rescinded.

Richard O. Jones rescinded.

**Motion:** Diane Eynon, seconded by Richard O. Jones, made a motion to create a Public Comment Policy similar to that of Suffolk County IDA with two changes: (1) the comment period be changed to up to five minutes per person (at the Chair's discretion) and (2) limiting public comment to agenda items only.

**Vote:** The motion was unanimously adopted (3-0).

#### **Record Retention & Disposition Policy**

**Motion:** Richard O. Jones, seconded by Diane Eynon, made a motion to recommend to the Board to use create Record Retention & Disposition Policy mimicking that of Clinton County IDA.

**Vote:** The motion was unanimously adopted (3-0).

#### **POLICIES TO BE AMENDED**

##### **Procurement Policy**

As part of the IDA's 2020 audit, it was brought to the Agency's attention that the ABO requires a non-collusion clause be put in place for bidding in the Procurement Policy. Counsel recommended that we add a non-collusion certification for all contracts copying the language used by Nassau County IDA. The Committee also discussed adding a certification for all vendors that uses our Code of Ethics and certifies no conflicts of interests with vendors. The Governance Committee considered a recommendation from the Audit Committee that Governance Committee consider some other changes to the Procurement Policy: The Governance Committee agreed that all contracts for professional services valued over \$5,000 over the course of a year be reviewed every year and put out for an RFP every three years.

**Motion:** Richard O. Jones, seconded by Diane Eynon, motioned to bring the Procurement Policy changes to the Board for approval.

**Vote:** The motion was unanimously adopted (3-0).

### **Compensation Policy**

As part of the annual reporting, it was brought to the Agency's attention that there should be a policy regarding time and attendance. The Committee used Orange County's Compensation, Reimbursement, and Attendance Policy as a model showing how the language could be added to UCIDA's current Compensation Policy. The Committee agreed that the policy should be edited to add that the Chair has discretion over consequences for attendance issues.

**Motion:** Richard O. Jones, seconded by Diane Eynon, motioned to bring these Compensation Policy changes to the full Board for approval.

**Vote:** The motion was unanimously adopted (3-0).

In the interest of time, the remainder of the agenda was tabled until the next Committee meeting.

### **PUBLIC COMMENT**

No public comment received.

### **ADJOURNMENT**

**Motion:** Diane Eynon, seconded by Richard O. Jones, moved to adjourn the meeting.

**Vote:** The motion was unanimously adopted (3-0).

The meeting was adjourned at 12:54 P.M.

Respectfully submitted,

Michael J. Ham, Committee Chair

# UCIDA

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Ulster County Industrial Development Agency

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## ENFORCEMENT OF AGENCY PROJECTS POLICY

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### SECTION 1. PURPOSE AND AUTHORITY.

The purpose of this policy is to outline the procedures utilized by the Ulster County Industrial Development Agency (the "UCIDA") pursuant to Section 923 of the General Municipal Law and Title One of Article 18-8 of the General Municipal Law (collectively, the "Act") to review compliance with UCIDA requirements relating to project implementation, policy conformance and reporting. Under the Act, the UCIDA was created in order to promote, encourage, attract, and develop job and business opportunities and economically sound commerce and industry in the cities, towns, and villages of Ulster County. The intent of the Enforcement Policy of the UCIDA is to maintain the integrity and accountability of IDA projects, while being supportive of and constructive with project entities that are attempting in good faith to implement their project commitments and goals.

### SECTION 2. DEFINITIONS.

- (A) "Active projects" shall mean projects that are approved and have a PILOT and/or other UCIDA agreement that has not completed its term.
- (B) "Full Time Equivalent (FTE) jobs" are defined as the total number of person hours, at a given point in time, working as of that time, divided by the number of person hours that the employer has designated as full time. Beginning May 13, 2009 the minimum weekly full time hours shall be thirty-five.

### SECTION 3. REQUIREMENTS OF THE APPLICANT.

- (A) Background. Under the Act, the UCIDA is required to submit certain annual reports relating to UCIDA projects to the New York State Office of the Comptroller and to the NYS Authority Budget Office. In order to satisfy its annual reporting requirements and other requirements of the Act, as well as policies of the UCIDA, the UCIDA will require applicants for financial assistance to satisfy the requirements described in Section 3(B) below.

- (B) Applicant Requirements. Each applicant for financial assistance from the UCIDA will agree to satisfy the following requirements as a condition to the receipt of such financial assistance:
- i. The applicant shall insure that all employees and applicants for employment with regard to the Project are afforded equal employment opportunities without discrimination.
  - ii. Except as otherwise provide by collective bargaining agreements, new employment opportunities created as a result of the project will be listed with the New York State Department of Labor Community Services Division (the "DOC") and the Ulster County Office of Employment and Training (the "UCOET") such programs collectively with the DOC, hereinafter referred to as the "Workforce Investment Program."
  - iii. Except as otherwise provided by collective bargaining agreements, where practicable, the applicant will first consider persons eligible to participate in the Workforce Investment Program who shall be referred by DOC and the UCOET for new employment opportunities created as a result of the Project.
  - iv. The applicant agrees, whenever requested by the UCIDA, to provide and certify or cause to be provide or certified such information concerning the applicant, its finances and other topics as the UCIDA from time to time reasonably considers necessary or appropriate, including, but not limited to such information as to enable the UCIDA to make any reports required by law or governmental regulation.
  - v. Within thirty-one (31) days after the end of each calendar year, the applicant shall furnish to the UCIDA a certificate of an Authorized Representative of the applicant stating that no Event of Default under the Installment Sale Agreement (or Lease Agreement) has occurred or is continuing or, if any Event of Default exists, specifying the nature and period of existence thereof and what action the applicant has taken or proposes to take with respect thereto, and setting forth the unpaid principal balance of the Bonds and accrued but unpaid interest thereon and that no defenses, offsets or counterclaims exist with respect to the indebtedness evidenced thereby.
  - vi. Within thirty-one (31) days after the end of each calendar year, the applicant shall furnish to the UCIDA a certificate of an Authorized Representative of the applicant stating that all payment in lieu of tax (PILOT) payments for the prior calendar year have been paid on time. In the event that PILOT payments have not been paid on time, the applicant shall certify as to the nature and period of non-payment and what action the applicant has taken or proposes to take with respect compliance with future payment requirements.

- vii. Pursuant to the requirements of subsection one of Section 6 of Chapter 127 of the 1995 Laws of the State of New York, the applicant agrees to file with the UCIDA, no later than thirty-one (31) days after the end of each calendar year, reports regarding the number of people employed at the Project Facility and certain other matters.
- viii. Pursuant to Section 874(8) of the Act, the applicant agrees to annually file and cause any sub-lessee or other operator of the Project Facility to file annually, with the New York State Department of Taxation and Finance, on a form and in such manner as is prescribed by the New York State Commissioner of Taxation and Finance (the "Annual Sales Tax Report"), a statement of the value of all sales and use tax exemptions claimed by the applicant and all contractors, subcontractors, consultants and other agents of the applicant under the authority granted to the applicant pursuant to the Installment Sale Agreement (or this Lease Agreement) and/or the Final Inducement Resolution and/or the Sales Tax Exemption Letter.
- ix. The applicant agrees to furnish to the UCIDA a copy of each such annual report submitted to the New York State Department of Taxation and Finance by the applicant pursuant to Section 874(8) of the Act.

#### **SECTION 4. COMPLIANCE.**

- (A) Monitoring. UCIDA project monitoring shall be the responsibility of the Chief Executive Officer or his or her designee which shall include but not limited to the following:
- i. The UCIDA will perform a monitoring visit of every active project site every year.
  - ii. The UCIDA will, at least annually, collect information for each active project enabling it to reasonably verify that PILOT invoicing has been done correctly, that payments due for the same have been made, that jobs have been substantially retained or created as projected, and that major project objectives have been substantially achieved.
  - iii. Annually collect information as of the last day of the calendar year:
    - Copies of NYS Form – 45 for each calendar quarter for the year in question
    - Copies of payroll journals summarized by employee showing hours worked and gross wages totaled by employee and project applicant for the year in question
    - Certificates evidencing the project applicant's general liability insurance, workers' compensation insurance (C-105.2) and disability insurance

- Copies of the NYS ST-340 Form for the year in question (if applicable)
- Copies of the project applicant's bond statement showing the principal repayment and outstanding principal on the Agency's bond issue (if applicable)
- Check or money order in the amount of \$100 made payable to the Agency for reimbursement of payroll/insurance verification (such amount subject to change)

At the expense to the project entity a certified public accountant shall verify and certify that the aforesaid numbers are consistent with the payroll data submitted to the State of New York in the entity's NY45, Proof of Workers' Compensation coverage.

- iv. During project site visits the UCIDA will require the applicant, upon request, to show copies of payroll related documents, which may include but not be limited to, NY45, proof of Workers' Compensation coverage, proof of Disability Insurance coverage, proof of Unemployment Insurance, etc.
- v. Annually collect for each active project other information relating to project performance.

(B) Annual Reports. Within ~~seventy five~~ninety (7590) days after the end of each calendar year, the Audit Committee of the UCIDA will prepare an internal compliance annual report describing the compliance by applicants with the requirement described in Section 3 above, including the filing of annual reports and the number of jobs created and retained by the applicant.

(C) UCIDA Review. Projects that are administratively deemed out of compliance will be reviewed by the Governance Committee, which may make enforcement action recommendations to the UCIDA. The UCIDA will review the internal compliance report at a regular meeting of the UCIDA. The UCIDA will take such actions as it deems necessary, including but not limited to, (1) scheduling meetings with applicants to review non-compliance and to discuss remedial actions, (2) considering enforcement action against applicants that fail to comply with the requirements described in Section 3 above, as described in Section 5 below, and (3) preparation of letters of commendation or other form of congratulation to those applicants that have created and/or retained jobs consistent with (or in excess of) the estimates contained in the applicants original application to the UCIDA.

**SECTION 5. ENFORCEMENT.**

(A) General. Upon completion of the report prepared by UCDC regarding compliance by the applicants with the requirements described in Section 3 above, the UCIDA will initiate enforcement action against those applicants that have failed to comply with such requirements.

(B) Compliance. Compliance action by the UCIDA may include, but not be limited to, the following:

- i. An active economic development project which fails to maintain its original job employment level and for which less than 90% of the projected jobs have been created after three years from closing will be subject to review and possible enforcement action.
- ii. An active project that has not substantially achieved its construction, expansion or services goals after three years from closing will be subject to review and possible enforcement action.
- iii. Temporary Suspension of Recapture Provisions. Any Project Benefit Agreement will contain language in substantially the following form:

This Section 4.03(C) [the obligation of the Company to make recapture payments] will be deemed temporarily suspended and the Agency will not be entitled to the recapture of Project Financial Assistance in any calendar year in which the Gross Domestic Product for any or all quarters of such calendar year falls below 0.00%.

“Gross Domestic Product” means the output of goods and services produced by labor and property located in the United States, expressed as an annualized percentage of growth, and as reported by the United States Department of Commerce – Bureau of Economic Analysis at [www.bea.gov](http://www.bea.gov).

iv. The UCIDA will notify the concerned entity in writing of the fact if its project is administratively determined to warrant compliance review, will require that they report to the UCIDA on project status within sixty (60) days of the date of the letter, and will schedule meetings with the entities in question to discuss explanations and remedial actions. The following will be used to determine if an explanation exists for failure to achieve the economic benefits projected by the company:

- Natural Disaster: if a natural disaster such as a fire, flood, or tornado disrupts the business.
- Industry Trends: An evaluation of industry trends will be made relevant to the company, and a determination reached as to whether the company is in a market that is declining. International and national data will be used in the evaluation. An industry is considered in decline when, measured by the appropriate SIC code, it experiences employment or revenue declines—beyond its control—of 10% or more over 3 years.
- Loss of Major Supplier or Customer: if the loss of a customer or supplier represents 15% or more of the sales of the company.
- Productivity Improvements: if new technology, equipment or general productivity improvements result in the need for less than projected employees or investment
- Unfair Competition: if an international competitor utilizes an

unfair competitive advantage to acquire market share.

- Public health crisis: if a public health crisis such as a pandemic disrupts the business.

iv. Other economic reversals.

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(C) Enforcement Action. -The IDA granting the economic incentive retains all rights to impose, delay, or waive penalties. Further, the Agency, at its sole discretion, may waive all or any portion of any payment owing by the company. Otherwise, Enforcement action by the UCIDA shall include, but not be limited to, the following:

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- Requesting the information and/or compliance by a final notice letter.
- Forwarding an event of default notice to the involved parties, including the lender.
- Forwarding an event of PILOT nonpayment to the affected taxing jurisdictions.
- Notifying appropriate New York State, Ulster County, and local municipal agencies of the applicant's failure to comply with such requirements.

- v. Terminating all or a portion of the financial assistance provide by the UCIDA, including any sales tax exemption letters and PILOT agreements.
- vi. Recapturing any or all benefits provided to an applicant under a PILOT agreement or sales tax exemption letter, in which case the UCIDA will return any such recovered funds to the taxing jurisdictions affected.
- vii. Referral to appropriate agencies for criminal or civil prosecution.

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(D) Recovery of Incentives. The terms of Project Agreement will, depending upon the terms of a project, include the following formulas in case of the occurrence of a Recapture Event and subject to the provisions of Section 4.02(B) hereof, the Company shall pay to the Agency the following amounts as recapture:

- i. For a 10-year PILOT
  - one hundred percent (100%) of the Benefits if the Recapture Event occurs prior to the Completion of Project Construction, or within the first (1st) or second (2nd) year after the Completion of Project Construction; or
  - ninety percent (90%) of the Benefits if the Recapture Event occurs during the third (3rd) year after the Completion of Project Construction; or;
  - eighty percent (80%) of the Benefits if the Recapture Event occurs during the fourth (4th) year after the Completion of Project Construction; or;
  - seventy percent (70%) of the Benefits if the Recapture Event occurs during the fifth (5th) year after the Completion of Project Construction; or;
  - sixty percent (60%) of the Benefits if the Recapture Event occurs during the sixth (6th) year after the Completion of Project Construction; or;
  - fifty percent (50%) of the Benefits if the Recapture Event occurs during the seventh (7th) year after the Completion of Project Construction; or;
  - forty percent (40%) of the Benefits if the Recapture Event occurs during the eighth (8th) year after the Completion of Project Construction; or;
  - thirty percent (30%) of the Benefits if the Recapture Event occurs during the ninth (9th) year after the Completion of Project Construction; or;
  - twenty percent (20%) of the Benefits if the Recapture Event occurs during the tenth (10th) year after the Completion of Project Construction; or;
  - ten percent (10%) of the Benefits if the Recapture Event occurs during the eleventh (11th) year after the Completion of Project Construction;

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<u>Year</u>	<u>Amount of Recapture</u>
<u>1</u>	<u>100% of the Project Financial Assistance</u>
<u>2</u>	<u>100% of the Project Financial Assistance</u>
<u>3</u>	<u>90% of the Project Financial Assistance</u>
<u>4</u>	<u>80% of the Project Financial Assistance</u>

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5	70% of the Project Financial Assistance
6	60% of the Project Financial Assistance
7	50% of the Project Financial Assistance
8	40% of the Project Financial Assistance
9	30% of the Project Financial Assistance
10	20% of the Project Financial Assistance
11	10% of the Project Financial Assistance

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ii. For a 15-year PILOT

- one hundred percent (100%) of the Benefits if the Recapture Event occurs prior to the Completion of Project Construction, or within the first (1st) or second (2nd) year after the Completion of Project Construction; or
- ninety-three percent (93%) of the Benefits if the Recapture Event occurs during the third (3rd) year after the Completion of Project Construction; or;
- eighty-six percent (86%) of the Benefits if the Recapture Event occurs during the fourth (4th) year after the Completion of Project Construction; or;
- seventy-nine percent (79%) of the Benefits if the Recapture Event occurs during the fifth (5th) year after the Completion of Project Construction; or;
- seventy-two percent (72%) of the Benefits if the Recapture Event occurs during the sixth (6th) year after the Completion of Project Construction; or;
- sixty-five percent (65%) of the Benefits if the Recapture Event occurs during the seventh (7th) year after the Completion of Project Construction; or;
- fifty-eight percent (58%) of the Benefits if the Recapture Event occurs during the eighth (8th) year after the Completion of Project Construction; or;
- fifty-one percent (51%) of the Benefits if the Recapture Event occurs during the ninth (9th) year after the Completion of Project Construction; or;
- forty-four percent (44%) of the Benefits if the Recapture Event occurs during the tenth (10th) year after the Completion of Project Construction; or;
- thirty-seven percent (37%) of the Benefits if the Recapture Event occurs during the eleventh (11th) year after the Completion of Project Construction; or;
- thirty percent (30%) of the Benefits if the Recapture Event occurs during the twelfth (12th) year after the Completion of Project Construction; or;
- twenty-three percent (23%) of the Benefits if the Recapture Event occurs during the thirteenth (13th) year after the Completion of Project Construction; or;
- sixteen percent (16%) of the Benefits if the Recapture Event occurs during the fourteenth (14th) year after the Completion of Project Construction; or;
- nine percent (9%) of the Benefits if the Recapture Event occurs during the fifteenth (15th) year after the Completion of Project Construction; or;
- two percent (2%) of the Benefits if the Recapture Event

occurs during the sixteenth (16th) year after the Completion of Project Construction;

<u>Year</u>	<u>Amount of Recapture</u>
<u>1</u>	<u>100% of the Project Financial Assistance</u>
<u>2</u>	<u>100% of the Project Financial Assistance</u>
<u>3</u>	<u>93% of the Project Financial Assistance</u>
<u>4</u>	<u>86% of the Project Financial Assistance</u>
<u>5</u>	<u>79% of the Project Financial Assistance</u>
<u>6</u>	<u>72% of the Project Financial Assistance</u>
<u>7</u>	<u>65% of the Project Financial Assistance</u>
<u>8</u>	<u>58% of the Project Financial Assistance</u>
<u>9</u>	<u>51% of the Project Financial Assistance</u>
<u>10</u>	<u>44% of the Project Financial Assistance</u>
<u>11</u>	<u>37% of the Project Financial Assistance</u>
<u>12</u>	<u>30% of the Project Financial Assistance</u>
<u>13</u>	<u>23% of the Project Financial Assistance</u>
<u>14</u>	<u>16% of the Project Financial Assistance</u>
<u>15</u>	<u>9% of the Project Financial Assistance</u>
<u>16</u>	<u>2% of the Project Financial Assistance</u>

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iii. For any longer PILOTS

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- one hundred percent (100%) of the Benefits if the Recapture Event occurs prior to the Completion of Project Construction, or within the first (1st) or second (2nd) year after the Completion of Project Construction; or
- X percent (X%) of the Benefits if the Recapture Event occurs during each year from the third year after the Completion of Project Construction forward;
  - "X" shall be 100% divided by the length of the PILOT and rounded up to the nearest whole percentage. For example, a 20-year PILOT will decrease by 5% each year beginning with the third year.

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Amended: February 17, 2021

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To: UCIDA Governance Committee

From: Rose Woodworth, CEO  
Richard O. Jones, CFO

Date: August 23, 2021

Re: UCIDA Fee Share with UCCRC

**Objective:**

To design a policy to clearly explain the fee share between the UCIDA and the UCCRC.

**Rationale:**

Industrial Development Agency's are unable to provide grants (outside of the temporary legislation for COVID-19 PPE). By keeping our IDA operating budget lean, we are able to put excess funds into the CRC so we can continue to benefit the larger community of Ulster County.

**Potential Areas for Support:**

Examples of potential areas for support may include, but are not limited to:

- Housing
- Education for green technology
- Education for farming or hospitality related topics
- Vocational education (including car mechanics, electrician, mechanical related topics including CAD/CAM, and computer-assisted industrial manufacturing, etc.

**Implications**

- Tax Implications - If all/some goes to the CRC, it would flow as a donation (with whatever constraints each partner has as to amount of donations to be taken) for each of the LLC partners on their personal taxes; or, be subject to constraints for non-LLC entities. If all/some goes to IDA, the fee would likely be capitalized over the tax life of the project.

**Potential Proportions**

- Flat percentage per project (for example, 50/50)
- Flat dollar amount per project (for example, the first \$100K goes to the and the remainder to the CRC)
- After our budgeted IDA income is met for the year, the remainder of fees goes to the CRC

## UCIDA UNIFORM TAX POLICY MATRIX (Applicable to Uniform Tax Exemption Policy ('UTEP') Categories 1-4)

Number of Points per Criteria	Projected New Permanent Full-time Jobs Created	Current (Retained) Full-time Jobs	Projected Wages*	Construction Jobs	Environmental Sustainability	Community Investment	Educational/ Workforce Investment
1	5-9	5-29	All jobs over LW**	At least 75% of the construction workforce consists of regional labor****	-	Project easily accessible using public transportation (bus stop within ¼ mile)	-
2	10-49	30-99	Above + 25% of FTE*** earn over 150% LW + Benefits	At least 50% of the construction workforce is paid prevailing wages	Use of existing industrial site or brownfield; construction in a shovel-ready site or designated business park; energy-efficient technology****, or significant renewable energy use	Development in economically distressed area of County***** -OR- Area is in "special condition" resulting from severe short- or long-term changes in economic conditions*****	At least 50% of workforce required to have advanced educational credential: technical degree from an Accredited Technical College, Approved NYS Apprenticeship Program or Associate Degree, or higher
3	50+: the 1 point for every additional 15 jobs	100+	Above + 25% of FTE earn over between 150% LW and 200% LW + 25% FTE earn over 200% LW + Benefits	At least 75% of the construction workforce is paid prevailing wages	-	-	Workforce housing or continuing care retirement community as defined in UCIDA Housing Projects Policy

\* Based on estimated wages and benefits at project completion.

\*\* No points will be awarded if there are ANY jobs paid at minimum wage. Minimum wage (see attached) is \$12.50 as of 12/31/20. At minimum, all jobs created must provide at least standard living wage for Ulster County. LW = MIT Living Wage for Ulster County (see attached) is \$12.85 for 2021: 150% LW = \$19.28 & 200% LW = \$25.70.

\*\*\* One FTE is equivalent to 1,820 hours per year (35 hours of work per week times 52 weeks per year).

\*\*\*\* Regional labor includes workers who reside in Ulster, Greene, Delaware, Sullivan, Orange, Dutchess or Columbia counties.

\*\*\*\*\* The project utilizes, to the fullest extent practicable and economically feasible, resource conservation, energy-efficiency, green technologies, and alternative and renewable energy measures including but not limited to LEED-Certified Projects. LEED Certification standards are defined by the US Green Building Council ([www.usbc.org](http://www.usbc.org)).

\*\*\*\*\* An area is considered "economically distressed" if one or more of the following criteria is met: 1) (a) The poverty rate of at least 20% for the year to which the data relates OR at least 20% of households receiving public assistance; AND (b) an unemployment rate of at least 1.25 times the statewide unemployment rate for the year to which the data relates; OR 2) An area which was designated an empire zone pursuant to article 18B of NYS General Municipal Law.

\*\*\*\*\* The area is, at the sole and absolute discretion of the Agency, subject to a "special condition" resulting from severe short- or long-term changes in economic conditions, such as the shutdown of a major employer or the loss of a significant industry.

# UCIDA

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Ulster County Industrial Development Agency

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## UNIFORM TAX EXEMPTION POLICY

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SECTION 1. PURPOSE AND AUTHORITY. Pursuant to Section 874(4)(a) of Title One of Article 18-A of the General Municipal Law (the “Act”), Ulster County Industrial Development Agency is required to establish a uniform tax exemption policy applicable to the provision of any financial assistance of more than one hundred thousand dollars to any project.

SECTION 2. DEFINITIONS. All words and terms used herein and defined in the Act shall have the meanings assigned to them in the Act, unless otherwise defined herein or unless the context or use indicates another meaning or intent. The following words and terms used herein shall have the respective meanings set forth below unless the context or use indicates another meaning or intent:

(A) “Administrative fee” shall mean a charge imposed by the Agency to an applicant or project occupant for the administration of the project.

(B) “Agency fee” shall mean the normal charges imposed by the Agency on an applicant or a project occupant to compensate the Agency for the Agency’s participation in a project. The term “Agency fee” shall include not only the Agency’s normal Administrative fee, but also may include (1) reimbursement of the Agency’s expenses, (2) rent imposed by the Agency for use of the property of the Agency, and (3) other similar charges imposed by the Agency.

(C) “Applicant” shall mean an applicant for financial assistance.

(D) “City” shall mean any city located in the County.

(E) “County” shall mean Ulster County.

(F) “PILOT” or “Payment in Lieu of Tax” shall mean any payment made to the Agency or an affected tax jurisdiction equal to all or a portion of the real property taxes or other taxes which would have been levied by or on behalf of an affected tax jurisdiction with respect to a project but for tax exemption obtained by reason of the involvement of the Agency in such project, but such term shall not include Agency fees.

(G) “School District” shall mean any school district located in the County.

(H) “Tax exemption” shall mean any financial assistance granted to a project, which is based upon all, or a portion of the taxes, which would otherwise be levied and assessed against a project but for the involvement of the Agency.

- (I) "Town" shall mean any town located in the County.
- (J) "Village" shall mean any village located in the County.

### SECTION 3. GENERAL PROVISIONS.

(A) General Policy. The general policy of the Agency is to grant tax exemptions as hereinafter set forth to any project which has been or will be financed by a straight- lease transaction or by the issuance by the Agency of bonds, notes or other evidences of indebtedness with respect thereto. Each project shall be scored by the Agency on the basis of the Uniform Tax Exemption Matrix. Benefits will be based upon the score achieved by a particular project as determined by the Agency.

(B) Exceptions. The Agency reserves the right to deviate from the general policy enunciated under subsection (A) in special circumstances. In determining whether special circumstances exist to justify such a deviation, the Agency may consider factors which make the project unusual, which factors might include but not be limited to the following factors: (1) the magnitude and/or importance of any permanent private sector job creation and/or retention related to project; (2) whether the affected tax jurisdictions will be reimbursed by the project occupant if the project does not fulfill the purposes for which tax exemption was granted; (3) the impact of the project on existing and proposed businesses and/or economic development projects; (4) the amount of private sector investment generated or likely to be generated by the project; (5) demonstrated public support for the project; (6) the estimated value of the tax exemptions requested; and (7) the extent to which the proposed project will provide needed services and/or revenues to the affected tax jurisdictions. In addition, the Agency may consider the other factors outlined in Section 874(4)(a) of the Act.

(C) Application. No request for a tax exemption shall be considered by the Agency unless an application and environmental assessment form are filed with the Agency on the forms prescribed by the Agency pursuant to the rules and regulations of the Agency. Such application shall contain the information requested by the Agency, including a description of the proposed project and of each tax exemption sought with respect to the project, the estimated value of each tax exemption sought with respect to the project, the proposed financial assistance being sought with respect to the project, the estimated date of completion of the project, and whether such financial assistance is consistent with this part.

(D) Enforcement. The Agency has enacted an Agency Enforcement Policy to provide for compliance by the applicant with the terms of this Uniform Tax Exemption Policy and any contracts entered into by the applicant and the Agency. The provisions of the Agency Enforcement Policy include a variety of enforcement actions that may be undertaken by the Agency upon the failure by the applicant to satisfy its obligations, including the termination of the PILOT Agreement (as hereinafter defined) and the "claw-back" of any or all financial assistance granted by the Agency.

### SECTION 4. SALES AND USE TAX EXEMPTION

(A) General. State law provides that purchases of tangible personal property by the Agency or by an agent of the Agency, and purchases of tangible personal property by a contractor for incorporation into or improving, maintaining, servicing or repairing real property of the Agency, are exempt from sales and use taxes imposed pursuant to Article 28 of the Tax Law. The Agency has a general policy of abating sales taxes applicable only to the initial acquisition, construction, reconstruction and/or

equipping of each project with respect to which the Agency grants financial assistance. The Agency has a policy of not abating sales taxes for projects that score under 6 points on the Uniform Tax Exemption Matrix. The Agency has no requirement for imposing a payment in lieu of tax arising from the exemption of a project from sales and/or use taxes applicable to the initial acquisition, construction, reconstruction and/or equipping of such project, except (1) as described in subsection (E) below or (2) in the circumstance where (a) a project is offered sales tax exemption on the condition that a certain event (such as the issuance of bonds by the Agency with respect to the project) occur by a certain date and (b) such event does not occur, in which case the Agency may require that the applicant make payments in lieu of sales tax to the New York State Department of Taxation and Finance.

(B) Period of Exemption. Except as set forth in subsection (A) above, the period of time for which a sales tax exemption shall be effective (the “tax exemption period”) shall be determined as follows:

(1) General. Unless otherwise determined by the Agency, the tax exemption for sales and use taxes shall be for the tax exemption period commencing with the issuance by the Agency of bonds, notes or other evidences of indebtedness with respect to the project and ending on the date of completion of the project.

(2) Early Commencement. The tax exemption period may, at the discretion of the Agency, commence earlier than the date of issuance by the Agency of the Agency’s debt relating to the project, provided that (a) the Agency has complied with the requirements of Section 859-a of the Act, (b) the Agency thereafter adopts a resolution determining to commence such period earlier, (c) the applicant agrees to the conditions of such resolution and supplies to the Agency the materials required to be supplied to the Agency thereunder, and (d) the Chief Executive Officer of the Agency acknowledges satisfaction of all conditions to the granting of such tax exemption set forth in such resolution.

(3) Normal Termination. The tax exemption period will normally end upon the completion of the project. On construction projects, the parties shall agree on the estimated date of completion of the project, and the tax exemption shall cease on the earlier of (a) the actual date of completion of the project or (b) the date, which is six (6) months after the estimated date of such project. On non-construction projects, the parties shall agree on the estimated date of completion of the project, and the tax exemption shall cease on the earlier of (a) the actual date of completion of the project or (b) the date, which is three (3) months after the estimated date of completion of the project. If the Agency and the applicant shall fail to agree on a date for completion of the project, the Agency shall on notice to the applicant make the determination on the basis of available evidence.

(4) Later Termination. The Agency, for good cause shown, may adopt a resolution extending the period for completion of the project and/or extend the tax exemption period.

(C) Items Exempted. The sales and use tax exemption granted by the Agency shall normally extend only to the following items acquired during the tax exemption period described in subsection (B) above:

- (1) items incorporated into the real property;
- (2) tangible personal property, including furniture, furnishings, and

equipment used to initially equip the project or otherwise forming part of the project if purchased as an agent of the Agency;

(3) the rental of tools and other items necessary for the construction, reconstruction and/or equipping of the project, if rented as an agent of the Agency; and

(4) office supplies, fuel and similar items consumed in the process of acquiring, constructing, reconstructing and/or equipping the project, if purchased as an agent of the Agency.

(D) Items Not Exempted. A sales and use tax exemption shall not be granted for the following:

(1) purchases occurring beyond the tax exemption period described in subsection (B) above;

(2) repairs, replacements or renovations of the project, unless such repairs, replacements or renovations constitute major capital-type expenses approved by the Agency as a separate project in the manner contemplated by the Act; or

(3) operating expenses, unless such operating expenses constitute major capital-type expenses approved by the Agency as a separate project in the manner contemplated by the Act.

(E) Percentage of Exemption. Unless otherwise determined by resolution of the Agency, the sales and use tax exemption shall be equal to one hundred percent (100%) of the sales and/or use taxes that would have been levied if the project were not exempt by reason of the Agency's involvement in the project. If an exemption of less than one hundred percent (100%) is determined by the Agency, then the applicant shall be required to pay a PILOT to the Agency equal to the applicable percentage of sales and/or use tax liability not being abated. The Agency shall remit such PILOT within thirty (30) days of receipt by the Agency to the affected tax jurisdictions in accordance with Section 874(3) of the Act.

(F) Confirmation Letter. The final act of granting a sales and/or use tax exemption by the Agency shall be confirmed by the execution by an authorized officer of the Agency of a confirmation letter by the Agency. Such confirmation letter shall be in the form of either Appendix 17B (where the exemption is permanent, because the Agency is satisfied that any conditions precedent to such tax exemption, such as the issuance of bonds by the Agency, have been satisfied) or Appendix 17C (where such exemption is tentative, because there remain conditions precedent to such tax exemption which have not been satisfied). Each such confirmation letter shall describe the scope and term of the sales and use tax exemption being granted.

(G) Required Filings. The New York State Department of Taxation and Finance requires that proper forms and supporting materials be filed with a vendor to establish a purchaser's entitlement to a sales tax exemption. For example, TSB-M-87(7) outlines the materials that must be filed to establish entitlement to sales tax exemption as "agent" of the Agency. It is the responsibility of the applicant and/or project occupant to ensure that the proper documentation is filed with each vendor to obtain any sales tax exemptions authorized by the Agency.

(H) Required Reports and Records.

(1) Pursuant to Section 874(8), the applicant and/or project occupant is required to annually file with the New York State Department of Taxation and Finance

a statement of the value of all sales and use tax exemptions claimed under the Act by the applicant and/or the project occupant and/or all agents, subcontractors and consultants thereof. The project documents shall require that (1) a copy of such statement will also be filed with the Agency and (2) that the project occupant shall maintain, for a period ending seven (7) years after the last purchase made under the sales and use tax exemption, and make available to the Agency at the request of the Agency, detailed records which shall show the method of calculating the sales and use tax exemption benefit granted by the Agency.

(2) Pursuant to Section 874(9) of the Act, the Agency is required to file within thirty (30) days of the date that the Agency designates an applicant to act as an agent of the Agency a New York State Department of Taxation and Finance form ST-60. The form identifies the agent of the Agency, provides a brief description of the project and an estimate of the value of the sales tax exemption and certain other information. The project documents shall require the applicant to assist the Agency in completing the form.

## SECTION 5. MORTGAGE RECORDING TAX EXEMPTION

(A) General. State law provides that mortgages recorded by the Agency are exempt from mortgage recording taxes imposed pursuant to Article 11 of the Tax Law. The Agency has a general policy of abating mortgage recording taxes for the initial financing obtained from the Agency with respect to each project with respect to which the Agency issues debt, which will be secured by a mortgage upon real property. In instances where the initial financing commitment provides for a construction financing of the Agency to be replaced by a permanent financing of the Agency immediately upon the completion of the project, the Agency's general policy is to abate the mortgage recording tax on both the construction financing and the permanent financing. The Agency has a policy of not abating mortgage recording taxes for projects that score under 6 points on the Uniform Tax Exemption Matrix.

(B) Refinancing. In the event that the Agency retains title to a project, it is the general policy of the Agency to abate mortgage recording taxes on any debt issued by the Agency for the purpose of refinancing prior debt issued by the Agency, and on any modifications, extensions and renewals thereof, so long as the Agency fees relating to same have been paid.

(C) Non-Agency Projects. In the event that the Agency does not hold title to a project, it is the policy of the Agency not to join in a mortgage relating to that project and not to abate any mortgage recording taxes relating to that project.

(D) Non-Agency Financings. Occasionally, a situation will arise where the Agency holds title to a project, the project occupant needs to borrow money for its own purposes (working capital, for example), and the lender will not make the loan to the project occupant without obtaining a fee mortgage as security. In such instances, the policy of the Agency is to consent to the granting of such mortgage and to join in such mortgage, so long as the following conditions are met:

(1) the documents relating to such proposed mortgage make it clear that the Agency is not liable on the debt, and that any liability of the Agency on the mortgage is limited to the Agency's interest in the project;

(2) granting of the mortgage is permitted under any existing documents relating to the project, and any necessary consents relating thereto have been obtained by the project occupant; and

(3) the payment of the Agency fee relating to same.

(E) Exemption Affidavit. The act of granting a mortgage recording tax exemption by the Agency is confirmed by the execution by an authorized officer of the Agency of an exemption affidavit relating thereto. A sample exemption affidavit is attached as Appendix 17D.

(F) PILOT Payments. If the Agency is a party to a mortgage that is not to be granted a mortgage recording tax exemption by the Agency (a “non-exempt mortgage”), then the applicant and/or project occupant or other person recording same shall pay the same mortgage recording taxes with respect to same as would have been payable had the Agency not been a party to said mortgage (the “normal mortgage tax”). Such mortgage recording taxes are payable to the County Clerk of the County, who shall, in turn, distribute same in accordance with law. If for any reason a non-exempt mortgage is to be recorded and the Agency is aware that such non-exempt mortgage may for any reason be recorded without the payment of the normal mortgage tax, then the Agency shall prior to executing such non-exempt mortgage collect a PILOT equal to the normal mortgage tax and remit same within thirty (30) days of receipt by the Agency to the affected tax jurisdiction in accordance with Section 874(3) of the Act.

## SECTION 6. REAL ESTATE TRANSFER TAXES

(A) Real Estate Transfer Tax. Article 31 of the Tax Law provides for the imposition of a tax upon certain real estate transfers. Section 1405(b)(2) of the Tax Law provides that transfers into the Agency are exempt from such tax, and the New York State Department of Taxation and Finance has ruled that transfers of property by the Agency back to the same entity, which transferred such property to the Agency, are exempt from such tax. The general policy of the Agency is to impose no payment in lieu of tax upon any real estate transfers to or from the Agency.

(B) Required Filings. It shall be the responsibility of the applicant and/or project occupant to ensure that all documentation necessary relative to the real estate transfer tax and the real estate transfer gains tax are timely filed with the appropriate officials.

## SECTION 7. REAL ESTATE TAX EXEMPTION

(A) General. Pursuant to Section 874 of the Act and Section 412-a of the Real Property Tax Law, property owned by or under the jurisdiction or supervision or control of the Agency is exempt from general real estate taxes (but not exempt from special assessments and special ad valorem levies). However, it is the general policy of the Agency that, notwithstanding the foregoing, every non-governmental project will be required to enter into a payment in lieu of tax agreement (a “PILOT Agreement”), either separately or as part of the project documents. Such PILOT Agreement shall require payment of PILOT payments in accordance with the provisions set forth below.

(B) PILOT Requirement. Unless the applicant and/or project occupant and the Agency shall have entered into a PILOT Agreement acceptable to the Agency, the project documents shall provide that the Agency will not file a New York State Department of Taxation and Finance, Division of Equalization and Assessment Form EA-412-a (an “Exemption Form”) with respect to the project, and the project documents shall provide that the applicant and/or the project occupant shall be required to make PILOT payments in such amounts as would result from taxes being levied on the project by the taxing jurisdictions if the project were not owned by or under the jurisdiction or supervision or control of the Agency. The project documents shall provide that, if the

Agency and the applicant and/or project occupant have entered into a PILOT Agreement, the terms of the PILOT Agreement shall control the amount of PILOT payments until the expiration or sooner termination of such agreement.

(C) PILOT Agreement. Unless otherwise determined by resolution of the Agency, all PILOT Agreements shall satisfy the following general conditions:

(1) Amount of Abatement: Each project shall be scored by the Agency on the basis of the Uniform Tax Exemption Matrix. Based upon the score achieved by the particular project as determined by the Agency, said project shall be entitled to the following benefits:

(a) **Category 1**: If a project scores 6 points or less there will be no PILOT.

(b) **Category 2**: If a project scores more than 6 points but less than 9 points, (i) the Initial Period shall be ten years, and (ii) the percentage of exemption in each tax year shall be as set forth in the following table:

**CATEGORY 2**

Tax year	Percentage of Exemption
1	50%
2	45%
3	40%
4	35%
5	30%
6	25%
7	20%
8	15%
9	10%
10	5%

(c) **Category 3:** If a project scores 9 or more points but less than 12 points, (i) the Initial Period shall be ten years, and (ii) the percentage of exemption in each tax year shall be as set forth in the following table:

**CATEGORY 3**

Tax year	Percentage of Exemption
1	100%
2	90%
3	80%
4	70%
5	60%
6	50%
7	40%
8	30%
9	20%
10	10%

(d) **Category 4:** If a project scores 12 or more points (i) the Initial Period shall be fifteen years, and (ii) the percentage of exemption in each tax year shall be as set forth in the following table:

**CATEGORY 4**

Tax year	Percentage of Exemption
1	95%
2	90%
3	85%
4	80%
5	75%
6	70%
7	65%
8	60%
9	55%
10	50%
11	40%
12	30%
13	20%
14	10%
15	10%

(e) **Category 5:** Notwithstanding anything herein to the contrary, if the project consists of employee workforce housing projects, and/or senior housing projects, the applicant shall make annual payments in lieu of property taxes pursuant to a PILOT Agreement that has been determined by the UCIDA after seeking input from all affected taxing jurisdictions and the community where the project resides.:

(i) PILOT payments would be fixed at an amount based on the number of units, within the ranges described as follows:

Type	Annual Amount
Workforce housing	\$450 – 1550/unit
Senior housing	\$450 – 1600/unit

(ii) The Agency shall determine the amount of the PILOT by considering the cost of the project and the impact the project has on the local community. In connection with such determination, the Agency shall take into account information provided by the applicant, the local municipalities and school districts, the local assessor, Ulster County real property tax services and any appraisal company retained by the Agency.

(iii) An adjustment based on the consumer price index will be assessed annually.

(iv) The term of the abatement shall be 15 years or a length that is no longer than the term of financing.

(v) The amounts payable under the PILOT Agreement with respect to these category 5 projects shall be payable at the times normal taxes are billed and collected and allocated among the affected tax jurisdictions in proportion to the tax rates of such affected tax jurisdictions in accordance with Section 858(15) of the Act.

(vi) Definitions:

1. “Workforce housing” shall mean a project proposed by or on behalf of an industrial, manufacturing, warehousing, commercial, research and recreation facility that is designed to provide workforce housing for the employees of such facility.

2. “Senior housing” shall mean housing facilities that meet the definition of a continuing care retirement community project under Section 859-b of the Act.

(2) Reduction for Failure to Achieve Goals: If the Agency’s approval of a particular project is predicated upon achievement by the project of certain minimum goals (such as creating and maintaining certain minimum employment levels), the PILOT Agreement may provide for the benefits provided thereby to the project to be reduced or eliminated if, in the sole judgment of the Agency, the project has failed to fulfill such minimum goals. Upon expiration of the Initial Period as aforesaid, the

assessment of the project shall revert to a normal assessment (i.e., the project will be assessed as if the project were owned by the Applicant and not by the Agency). Also, any addition to the project shall be assessed normally as aforesaid, unless such addition shall be approved by the Agency as a separate project following the notice and a public hearing as described in Section 859-a of the Act. Other than fixing the Final Assessment for the Initial Period as aforesaid, the general policy of the Agency is to not provide the Applicant and/or project occupant with any abatement, other than abatements allowed under the Real Property Tax Law.

(3) Special District Taxes. As indicated above, the Agency is not exempt from special assessments and special ad valorem levies, and accordingly, these amounts are not subject to abatement by reason of ownership of the project by the Agency. The PILOT Agreement shall make this clear and shall require that all such amounts be directly paid by the applicant and/or project occupant.

(4) Payee. Unless otherwise determined by resolution of the Agency, all PILOT payments payable to an affected tax jurisdiction shall be assessed, billed and collected directly by the same officials which assess, bill and collect normal taxes levied by such affected tax jurisdiction. Pursuant to Section 874(3) of the Act, such PILOT payments shall be remitted to each affected tax jurisdiction within thirty (30) days of receipt.

(5) Enforcement. An affected tax jurisdiction, which has not received a PILOT payment due to it under a PILOT Agreement, may exercise its remedies under Section 874(6) of the Act. In addition, such affected tax jurisdiction may petition the Agency to exercise whatever remedies that the Agency may have under the project documents to enforce payment and, if such affected tax jurisdiction indemnifies the Agency and agrees to pay the Agency's costs incurred in connection therewith, the Agency may take action to enforce the PILOT Agreement.

(6) Late Payments.

(a) First Month. Pursuant to Section 874(5) of the Act, if the Company shall fail to make any payment required by the PILOT Agreement when due, the Company shall pay the same, together with a late payment penalty equal to five percent (5%) of the amount due.

(b) Thereafter. If the Company shall fail to make any payment required by the PILOT Agreement when due and such delinquency shall continue beyond the first month, the Company's obligation to make the payment so in default shall continue as an obligation of the Company to the affected Tax Jurisdiction until such payment in default shall have been made in full, and the Company shall pay the same to the affected Tax Jurisdiction together with (1) a late payment penalty of one percent (1%) per month for each month, or part thereof, that the payment due hereunder is delinquent beyond the first month, plus (2) interest thereon, to the extent permitted by law, at the greater of (a) one percent (1%) per month, or (b) the rate per annum which would be payable if such amount were delinquent taxes, until so paid in full.

(7) Pro-Rata Allocation. Unless otherwise agreed by the affected Tax Jurisdictions, any PILOT Agreement shall provide that payments in lieu of taxes shall be allocated among the affected Tax Jurisdictions in proportion to the amount of real property tax and other taxes which would have been received by each affected Tax Jurisdiction had the project not been tax exempt due to the status of the Agency.

(D) Required Filings. As indicated in subsection (B) above, pursuant to Section 874 of the Act and Section 412-a of the Real Property Tax Law, no real estate tax exemption with respect to a particular project shall be effective until an exemption form is filed with the assessor of each county, city, town, village and school district in which such project is located (each, a "Taxing Jurisdiction"). Once an exemption form with respect to a particular project is filed with a particular Taxing Jurisdiction, the real property tax exemption for such project does not take effect until (1) a tax status date for such Taxing Jurisdiction occurs subsequent to such filing, (2) an assessment roll for such Taxing Jurisdiction is finalized subsequent to such tax status date, (3) such assessment roll becomes the basis for the preparation of a tax roll for such Taxing Jurisdiction, and (4) the tax year to which such tax roll relates commences.

(E) Real Property Appraisals. Since the policy of the Agency stated in subsection (C)(1) is to base the value of a project for payment in lieu of tax purposes on a valuation of such project performed by the Assessor of the applicable Taxing Jurisdiction, normally a separate real property appraisal is not required. However, the Agency may require the submission of a real property appraisal if (1) the assessor of any particular Taxing Jurisdiction requires one or (2) if the valuation of the project for payment in lieu of tax purposes is based on a value determined by the applicant or by someone acting on behalf of the applicant, rather than by an assessor for a Taxing Jurisdiction or by the Agency. If the Agency requires the submission of a real property appraisal, such appraisal shall be prepared by an independent MAI certified appraiser acceptable to the Agency.

## SECTION 8. PROCEDURES FOR DEVIATION

(A) General. In the case where the Agency shall determine that any policy of the Agency as herein established is inappropriate or unfair, the Agency may determine:

(1) the amount of the tax exemption, the amount and nature of the PILOT Agreement, the duration of the exemption and of the PILOT Agreement and whether or not an exemption of any kind shall be granted and shall impose such terms and conditions as shall be just and proper; and

(2) the Agency shall give written notice of the proposed deviation from the policy set forth herein to each affected Tax Jurisdiction setting forth the terms and conditions of the deviation and the reasons therefore. Such notice to the affected Tax Jurisdictions shall be given to the chief executive officer of each affected Tax Jurisdiction at least thirty (30) days prior to the meeting of the Agency at which the Agency shall consider whether to approve such deviation. Prior to taking any final action on a proposed deviation, the Agency shall review and respond to any correspondence received from any affected Tax Jurisdiction regarding the proposed deviation and allow any representative of an affected Tax Jurisdiction present at such meeting to address the Agency regarding the proposed deviation.

(B) Troubled Projects. Where a project is owned and operated by the Agency or has been acquired by the Agency for its own account after a failure of a project occupant, the project shall at the option of the Agency be exempt from all taxes in accordance with law.

(C) Unusual Projects. Where a project is unusual in nature and requires special considerations related to its successful operations as demonstrated by the appropriate evidence presented to the Agency, the Agency shall consider the granting of a deviation from the established exemption policy in accordance with the procedures

provided in the title. The Agency may authorize a minimum PILOT or such other arrangement as may be appropriate.

(D) Review by Agency with Affected Tax Jurisdictions. Before the Agency shall enter into a PILOT Agreement that deviates from the policy set forth herein, the Agency shall (1) notify each affected Tax Jurisdiction in accordance with Section 8(A)(2) hereof, and (2) attempt to obtain the written consent of all the affected Tax Jurisdictions to such deviation. In the event that the Agency is not able to obtain the consents of all the affected Tax Jurisdictions to such deviation, the Agency may enter into such PILOT Agreement that deviates from the policy set forth herein without the consents of such affected Tax Jurisdictions. The provisions of this Section 8(D) shall not apply in situations where the Agency holds title to property for its own account.

## SECTION 9. ANNUAL REVIEW OF POLICIES

(A) General. At least annually, the Agency shall review its tax exemption policies to determine relevance, compliance with law, effectiveness, and shall adopt any modifications or changes that it shall deem appropriate. Unless otherwise provided by resolution, such annual review shall take place at the annual meeting of the Agency each January, notice for comments on such policies shall be circulated thirty (30) days prior to such meeting to Ulster County and affected Tax Jurisdictions, and adoption of any changes shall take effect immediately upon approval by the Agency. The Chief Executive Officer (CEO) shall be responsible for conducting an annual review of the tax exemption policy and for an evaluation of the internal control structure established to ensure compliance with the tax exemption policy, which shall be submitted, to the Agency for approval. The thirty (30) day comment period shall not apply to the adoption of the original policies of the Agency, which said policies shall become effective as herein provided.

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Affirmed: May 13, 2020

# Green Energy Incentives Assessment Project Final Report



Prepared for:

Tompkins County Planning Department  
Tompkins County Industrial Development Agency (TCIDA)  
Tompkins County Area Development (TCAD)



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## Contents

Background .....	3
Task 1- Discussions with Developers .....	5
What Energy Improvements Would a Well-Informed Developer Invest In? .....	6
Do We Need to Worry About “Free Riders”? .....	7
Task 2 – Determine Incentive Standard and Level/Range of Abatements .....	7
Options for an Incentive Standard .....	7
The Challenge of Equivalence .....	8
Review of Other Incentives (Federal, State, etc.) .....	9
Federal 179d Tax Deduction .....	9
Investment Tax Credit and Depreciation of Renewable Energy Systems .....	9
NYSERDA Incentives .....	9
The Question of Operational Energy Use .....	11
Recognition-Based Approaches .....	11
Level of Incentives.....	12
Attainable Savings.....	12
What Energy Savings Do Different Rating Systems Deliver? .....	13
Incremental Cost.....	14
Return on Investment.....	15
Incentive Structure.....	15
Reality Check: Two New Local Buildings .....	17
Task 3 – Develop Method/Rating System and Measurement System .....	20
Possible Rating Systems .....	20
Recommended Rating System .....	21
Measurement and Verification .....	21
Timing.....	22
Does the Proposed Method Meet Our Stated Programmatic Goals? .....	22
Other .....	23
Conclusion.....	25
Appendix A: Interview Questions Posed to Developers .....	26
Appendix B: Proposed Requirements .....	28
Appendix C: Schematic Design Guidelines.....	31

## Background

There is a widely-recognized urgency to reduce energy use in buildings, in order to reduce carbon emissions and slow the devastating effects of climate change. New York State's energy plan sets a long-term goal of an 80% reduction in greenhouse gas emissions by 2050. California plans that new commercial buildings will be zero-energy buildings by 2030. Architecture 2030, a widely-adopted standard, has set an interim goal of 70% reduction in fossil energy use for new buildings through the year 2020, 80% through 2025, 90% through 2030, and 100% reduction after 2030.

The Tompkins County Industrial Development Agency (TCIDA) offers tax abatements to specific new building development projects, for a variety of reasons, including economic development and promotion of higher density development. Given the emerging significant interest in reducing greenhouse gas emissions, consideration is being given to providing incentives for green building design and construction, specifically to promote low-energy and low-carbon buildings. This project is intended to develop criteria and justification for such incentives.

The project began with a series of conversations with developers, using specific projects as examples, to explore issues such as the level of energy efficiency developers typically seek without incentives, what further efficiency is possible, and associated returns on energy investments.

The project then evaluated possible energy efficiency standards which could serve as energy goals for such incentives, and the associated level/range of incentives.

The project concluded by recommending specific rating systems, and a measurement protocol to assess the success of the program.

### What Would a Successful Green Tax Incentive Look Like?

A successful green energy incentive would have most or all of the following characteristics:

- Be **cost-effective**: For a given incentive, significant and measurable changes in energy use would be seen in new building design and construction, preferably meeting substantial goals, at minimum cost to the taxpayer.
- Be **complementary** to other incentives; does not double-dip; does not compete; does not render other incentives less effective or obsolete; supports and integrates well with other incentives so that other incentives can be leveraged, and the green energy incentives can be most cost-effective (minimized)
- **Influences decision-making** constructively; minimizes incentives to "free riders" (those who would have designed/built efficiently anyway, without incentives)
- Has a **ripple effect**, in affecting future building design and construction decisions, by both incentives-receiving developers and other developers. This is called **spillover**. Spillover might occur through lessons learned, best practices developed and shared, and more.
- Supported projects serve as a **demonstration/example** for other developers.
- **Simple to administer**
  - o Simple to calculate
  - o Simple to explain

- Simple to manage (for example, to achieve quality control, for reporting, etc.)
- Simple to evaluate (measurement and verification)
- Has a **measurable effect**
- Is **not easily gamed**. In other words, does not allow developers to obtain incentives without substantially delivering the goals of energy efficiency, through “model-tweaking”, gaming of measurement, or other means of either unfair gaming (cheating) or “rules-bending”
- **Achieves goals**: energy conservation and economic development
- **Easily changed/calibrated** to changing market conditions. For example, if energy costs rise (or if a federal or state carbon tax is implemented, essentially raising the effective price of energy), and so the built-in incentive to conserve energy goes up, it might be desirable to reduce the incentives. Conversely, if energy prices drop, there may be a need to raise the incentives.
- Be **fair**, for example, not conferring preference to one technology (e.g. preferably technology-neutral) or building sector.
- Be **acceptable to the community**, including stakeholders such as the community at large, the TCIDA, county legislature, TCAD, and others
- Be **defensible**, in other words be sufficiently defensible in the face of community or legal challenges
- Accounts for **differences in energy use** between different sectors. For example, office and healthcare buildings typically use more energy than hospitality buildings – if an incentive is based “per square foot”, then sector-specific incentives would be more fair and cost-effective than one single sector-agnostic incentive.
- Offer the promise of **persistence of savings**, for example by encouraging best practices, such as the ongoing use of EPA’s Portfolio Manager to track energy use, which could be a requirement for maintaining the tax abatements
- Possibly “slides” to incentivize not only reaching a minimum/threshold efficiency, but going **beyond-minimum**

### Innovative Aspects

Considering a property tax abatement for energy is a novel approach, and not one we have heard of before. The timing of such an offering to developers, essentially early in the design process, is such that it has a great potential for influencing design and construction. It also comes at a time when the developer is highly engaged in the scope of the proposed project/design, and may be particularly interested in approvals, even for reasons other than the proposed green incentives, such as public relations, the conventional abatement they are seeking, etc. The proposed approach could serve as an example for other new commercial buildings in the county, even ones not seeking or eligible for incentives. It could also serve as a model for other communities in the state and nation.

### Precedent

There is growing precedent for state and municipalities encouraging or requiring better-than-code energy performance. For example, the state of California will require all commercial buildings to be zero-energy buildings by the year 2030. Boulder County, Colorado, has set a goal of zero energy in

buildings by 2031. Sarasota County, Florida, has set a goal of all new municipal construction being carbon neutral by 2030. Washington DC has set a goal of all new buildings to be net zero by 2032. There are many more such examples.

## Task 1- Discussions with Developers

We met in person with two developers, spoke on the phone with a third developer, and met with a manufacturer. All have previously received tax abatements. We also examined drawings for three new commercial buildings that have received abatements: An office building, a hotel, and a multifamily building.

Questions asked during the interviews are provided in Appendix A.

Interesting and unexpected findings included mention of energy improvements that developers are already doing in their new buildings. For example, two of the three case-study buildings are using high-efficiency water heaters. One building has slightly more wall insulation than required by the energy code. Another building has slightly more roof insulation than required by the energy code. The hotel is using low-flow bathroom faucets. Two of the three case-study buildings have air conditioning that is slightly more efficient than the energy code requires. One of the three case-study buildings has a higher-efficiency boiler than required by code. One building is having high-efficiency LED lighting installed. One developer and the manufacturer mentioned having made energy improvements to existing buildings in their portfolio, and the manufacturer has also installed a modest-sized solar photovoltaic system.

However, despite mention of these energy improvements, energy savings relative to code requirements are estimated to be negligible, for two reasons:

1. To substantially save energy in a building, measurable improvements need to be made for many different systems, typically including: Lighting type and layout, lighting controls, heating, cooling, heating and cooling controls, ventilation, infiltration, wall insulation, roof insulation, window efficiency, window size, plug loads, water heating, hot water distribution, hot water fixtures, and more. What we are seeing is 2-3 modest energy improvements per building. We estimate savings from these improvements to only be between 2% and 7% for the three case studies.
2. These savings are largely offset by other sub-optimal design choices. For example, two out of three case study buildings are using a type of heat pump system (boiler/tower water loop heat pump) that have been shown to be inefficient for the type of building in which they are installed (hotel and single-story office building). While the heating systems comply with the energy code, substantial energy savings would have been seen if a simple traditional boiler had been used, or other traditional systems (furnace, air-source heat pump, etc.). Furthermore, all three case-study buildings are using more window area than is recommended for energy-efficient buildings. The new energy code (October 2016) limits window-to-wall ratio to 30%, and energy-efficient design is typically 20% or less. All three buildings have a window-to-wall ratio over 30%, and the average is 36%. Finally, all three buildings could have been designed with slightly more optimal

building shapes, reducing exposed walls and roof area, which would reduce both energy use and construction cost.

Other findings from these meetings and drawing reviews included:

- There has been no recent implementation of certified high-performance building design and construction: No use of NYSERDA's New Construction Program, no solar energy systems (except for a small system installed at an existing building), no ENERGY STAR buildings, and no LEED buildings. Interestingly, most high-performance design and construction in larger local projects appears to have been done by mission-driven not-for-profits, such as INHS and EcoVillage.
- Developers do not currently benchmark buildings for energy use, for example by using EPA Portfolio Manager.
- Developers stated that they seek return on investments (ROI) in the 12-20% range, equivalent to a 5-8 year simple payback. The one manufacturer with whom we spoke stated that they seek a higher ROI, in the 20-30% range (3-5 year payback), which in our experience is typical for manufacturers, as they compare energy investments with competing investments in manufacturing/production processes.
- The manufacturer has access to low electricity prices, through a state economic development program. This increases paybacks for energy investment (reduces ROI), and so makes energy investments more difficult to justify.

#### What Energy Improvements Would a Well-Informed Developer Invest In?

We evaluated several broad group of improvements, to assess which ones a well-informed developer might invest in. By "well-informed developer", we mean a developer who is provided realistic independent, objective assessment of energy improvements, rather than overly-optimistic assessments often provided by equipment vendors.

We found that only one energy improvement provides a return on investment that would meet the stated goals of local developers: High-efficiency water heaters. There are also two groups of not-widely-recognized investments that always make sense: Those that save energy but do not add cost to a building (such as low-flow showerheads and faucets), and those that save energy while reducing cost to a building (such as building shape improvements, reduced window-to-wall ratio, and efficient lighting layouts).

Three of the examined energy improvements almost fall into an attractive range: Heating plant efficiency, solar photovoltaics (assuming continued federal tax credit), and wall insulation. Four energy improvements are clearly unattractive investments: Roof insulation, efficient elevators, infiltration reduction, and cooling plant efficiency. Reasons vary for why some investments are poor. For example, roof insulation improvements are likely more difficult to justify because the energy code already requires well-insulated roofs. Cooling plant efficiency is likely more difficult to justify because our climate is cold (less cooling is required), and also less cooling is used in buildings such as apartments and hotels (shorter runtime of cooling equipment). A summary of our findings is shown in the table below.

	Return on Investment
Roof insulation	1%
Efficient elevators	1%
Reduce infiltration	2%
Cooling plant	4%
Heating plant	6%
Solar PV	7%
Wall insulation	8%
Efficient water heater	12%
+ Items with no added cost (e.g. low-flow showerheads)	
+ Items with energy and cost savings (e.g. building shape)	

It might be noted that although most of these investments are unattractive in and of themselves, it is common for energy projects to include both economically attractive and less attractive improvements in a single project. The attractive improvements essentially help to pay for the less attractive improvements, in order to provide a balanced set of improvements that delivers substantial savings.

**Do We Need to Worry About “Free Riders”?**

Free riders are participants in incentive programs who receive financial incentives for decisions which they would likely have made anyway. Our assessment is that there will be no free riders in the proposed green energy incentives. Currently, developers simply do not design or build efficient buildings. Our conclusion is that new large buildings in the county do not use less energy than code-compliant buildings. No recent projects receiving tax abatements have participated in any high-performance building programs (NYSERDA, LEED, ENERGY STAR, etc.). Efficient equipment that has been installed in these buildings are generally minor in energy improvement impact, and efficiency gains have been offset (lost) by other sub-optimal decisions, for example in heating equipment selection, window sizing, and building shape.

**Task 2 – Determine Incentive Standard and Level/Range of Abatements**

**Options for an Incentive Standard**

There are several widely used energy standards.

The energy code, essentially one section of the building code, represents one such standard. The energy code is the law for new buildings. In New York State, the energy code is changing in October 2016, and will be based on the International Energy Conservation Code (2015), with minor state-specific modifications. The new energy code is not sufficient to meet the county's goals, but represents a baseline against which proposed improvements can be measured.

Architecture 2030 is another widely used standard. It sets as a goal that until 2020, new buildings will be designed to use 70% less energy than the current stock of buildings of the same type.

LEED is a standard that includes not only energy conservation, but also water conservation and other green features. It is a point-based system. Energy efficiency points vary with the energy efficiency of the building. No specific single energy target is required.

ASHRAE has a new standard called the Building Energy Quotient (BEQ). It is a scoring system, where 0 represents a Zero Energy Building, and 100 represents a building typical of current built stock.

Passivhaus is a high-performance building standard originally developed in Germany. It also has a U.S.-specific version.

ENERGY STAR is a standard that uses actual utility bills to benchmark buildings against the average use of similar existing buildings. If a building uses 25% less energy than similar buildings, it can qualify for the ENERGY STAR label.

### The Challenge of Equivalence

One problem with many of the existing standards is that they are not equivalent, and it is not easy to translate one standard to another.

The energy code itself is constantly changing. In New York, standards in recent decades include the 1990 Energy Conservation Code, the 2000 International Code, the 2009 code, revisions that went into effect January 1, 2015, and a new code that will go into effect on October 3, 2016.

The "baseline" of many standards is also different, and each baseline sometimes changes as each standard is revised over time. The baseline of Architecture 2030 is a database of existing buildings. The current baseline of LEED is ASHRAE Standard 90.1-2010. The baseline of NYSERDA's current energy program is also ASHRAE Standard 90.1, but its 2013 version (90.1-2013). Passivhaus uses an absolute standard of energy use per unit of building floor area, and imposes additional requirements around infiltration and ventilation.

We have attempted to estimate a rough equivalence between the standards, for purposes of our recommendations. But any analysis at equivalence is necessarily rough.

There are signs of an attempt to harmonize the standards. A proposal has been made to standardize on a 2004 baseline, with indexed adjustments over time. We do expect some standardization of standards, in coming years, especially among LEED, NYSERDA, and the state energy code, all reportedly seeking to harmonize on a method using ASHRAE Standard 90.1 with a constant baseline.

### Review of Other Incentives (Federal, State, etc.)

Most other existing incentives are regarded to be too modest to spur action in most cases, and certainly not to the level of energy savings sought by the county. For example, none of the recent recipients of local tax abatements have sought or received energy incentives for new construction projects (for example, NYSERDA), or has sought certification under any of the common high-performance building standards (ENERGY STAR, LEED, Architecture 203, Passivhaus, etc.).

### Federal 179d Tax Deduction

The federal government has had a tax deduction for several years, called the 179d deduction. It has only been available to for-profit organizations, and to government agencies (where the tax deduction is taken by the building design professional), but has not been available to not-for-profits. Available since about 2005, the 179d tax deduction has been repeatedly slated for elimination, but has been repeatedly renewed, currently available till December 31, 2016. The incentive essentially is a \$1.80/SF tax deduction if a building is designed to 50% lower energy use, using an older version of ASHRAE Standard 90.1 as a baseline (2007). Measurement and verification is not required. The deduction is based on a computer model. There is anecdotal evidence that the deduction has mainly been obtained by free riders, in other words the deduction has been obtained by owners of high-performance buildings who learned after-the-fact that the deduction is available and that their building qualifies. Buildings qualifying for the proposed property tax abatement will undoubtedly also qualify for the 179d tax deduction. Its value, at a marginal tax rate of 28%, is \$0.50/SF. We did not account for the 179d tax deduction, in developing a recommended green energy incentive, because of its anticipated expiration at the end of 2016. However, if the 179d deduction is ultimately extended, it could be accounted for in adjusting the proposed green energy incentive. In other words, if the 179d deduction is extended, the TCIDA could reduce its incentive.

### Investment Tax Credit and Depreciation of Renewable Energy Systems

The federal investment tax credit (ITC) of 30% has been available for several years, and was recently renewed, although it is planned to be eliminated over the next few years, by decreasing each year. It is available for renewable energy systems (photovoltaic, solar thermal, etc.), and geothermal heat pump systems. This tax credit has been successful in that many “early adopters” have had solar systems installed. However, none of the interviewed developers have installed solar energy or other qualifying systems (e.g. geothermal heat pumps).

Renewable systems on commercial buildings are also eligible for accelerated depreciation.

### NYSERDA Incentives

NYSERDA has had an incentive for solar energy that over the years has been steadily reduced, from as high as over \$3/watt, to its current rate of \$0.40/watt, which will continue to drop through 2016. It is believed that this incentive will at some point be eliminated, although it was recently increased for certain sectors (e.g. low-income).

NYSERDA has energy efficiency incentives for high-performance new commercial building projects. The current program (through December 31, 2017) offers \$0.16 per annual kWh saved, plus \$280 per annual peak summer kW saved, for projects that are more than 30% more efficient than a baseline design. The baseline design is defined in ASHRAE Standard 90.1-2013 (Appendix G).

Additional support is available for soft costs, such as engineering work to identify energy improvements, energy modeling, commissioning of energy systems, and support for the design team (e.g. architect's team) to incorporate the energy improvements in the project design. Significantly, if the project is over 40% more efficient than the baseline (a level that should be met by the abatement program we are considering), NYSERDA covers 80% of the soft costs of energy improvements, in addition to providing an incentive to the design team, a separate incentive for commissioning, and additional incentives if a building is LEED-certified. Incentives are subject to caps.

The NYSERDA New Construction incentive has significance for several reasons:

- It would reduce the required incentive for the TCIDA.
- It provides funding to cover much of the soft costs for compliance with the proposed tax abatement, including the selection of energy improvements, energy modeling, support for the design team (architect's team), commissioning (testing), and more.
- It provides an independent third party verification, in terms of NYSERDA's review of the consultant's submittal. It also typically provides a site inspection to ensure that proposed improvements were actually installed.

The incentive is mainly directed to building energy efficiency (insulation, windows, heating and cooling, ventilation, lighting, motors), but does not apply fully to a variety of "uncontrolled" loads according to ASHRAE Standard 90.1, such as plug loads (computers, appliances, plug lighting), or renewables. There may be some support for providing control of receptacles, for example, but not for the purchase of high-efficiency appliances such as ENERGY STAR devices. Renewables such as solar photovoltaics are not covered by the program, as assistance is provided by a separate NYSERDA program, however some soft costs of evaluating solar as part of substantially reducing building energy usage might be covered.

The NYSERDA New Construction Program incentives are estimated to represent \$1.00-\$2.00/SF for hard project costs, and depend on the projected (modeled) energy savings. The value of NYSERDA's contribution to soft costs likely represents an additional \$0.50-\$1.50/SF. A rough overall estimate of NYSERDA's contribution is \$2.50, if a building meets the 40%-better-than-baseline threshold.

The NYSERDA New Construction program does not cover multifamily buildings, which are addressed by a separate NYSERDA program. The NYSERDA multifamily new construction program is currently being redesigned. Early indications are that incentives are roughly in the same ballpark as for the non-multifamily commercial program, specifically for buildings which reach a very high level of energy efficiency, but this can only be confirmed when the program is introduced. The multifamily program will have three tiers. The highest tier (Tier 3) is intended to encourage zero energy buildings, and allows for "near zero energy" buildings, but may require energy performance better than the range we are seeking. The middle tier (Tier 2) is anticipated to target 15% better than the energy code, and so will

likely not be strong enough to reach our goals. Tier 2 may come with modest incentives, in other words the incentives at this efficiency level are not big.

The NYSERDA new construction incentives are relatively successful, although, again, have mainly been used by “early adopters”. For example, none of the interviewed developers has sought or received NYSERDA new construction incentives.

### The Question of Operational Energy Use

A building uses energy in many ways. For example, a building requires energy for heating and cooling. The energy use of these components is defined by the building design and construction – how much insulation is in the walls, the types and size of windows, the type and efficiency of the heating and cooling systems, infiltration, ventilation, and other intrinsic components of the building’s essential fabric. We refer to these as the “asset-related” components of energy use in a building.

However, a major component of a building’s energy use is dependent on the behavior of its occupants: When lights are turned on and off, what appliances are used, and more. We refer to these components of energy use as “operational” energy use.

As buildings become more efficient, the operational component of energy use becomes a larger fraction of overall energy use. And, while we cannot control detailed aspects of how occupants use energy in a building, we can provide tools with which energy use can be more efficient. Emerging approaches include control of receptacles, for example, allowing receptacles to be controlled (such as being shut off) from a central computer system. Another approach is to use more energy-efficient appliances, such as ENERGY STAR appliances.

To reach the deep levels of energy savings required to meet county, state, and federal goals, we likely need to move beyond asset-related energy use, and we need to also encourage operational energy savings. Initial efforts in this direction include receptacle control, as mentioned. In addition, we believe that the use of energy-efficient appliances is essential to meeting energy goals. So, we propose to require the use of ENERGY STAR appliances, when new permanent appliances are installed in a building, such as refrigerators, laundry equipment, etc. We further will recommend (but not require) that developer-tenant lease agreements encourage (but not require) the use of ENERGY STAR appliances.

### Recognition-Based Approaches

A variety of *recognition-based* or *certification* approaches to high-performance building design and construction have been developed in recent years. These include LEED, Architecture 2030, Living Building Challenge, and Passivhaus. While these approaches do not come with financial incentives, they are of interest for two reasons:

- a. As possible qualification criteria for abatements.
- b. As achievable energy targets that we may consider.

Recognition-based approaches have value, for public relations. The TCIDA could even consider providing public recognition of its own, for projects achieving efficiency under the proposed green energy incentives program.

## Level of Incentives

In order to develop recommendations for incentives, we need to ask several questions:

1. Are energy improvements readily possible to reach the county's goals?
2. How much do such energy improvements cost?
3. What level of incentives will be sufficient to entice developers to make substantial energy improvements? What level of incentives might be "too much", in other words would be unnecessarily high, and so a waste of taxpayer money.
4. How should the incentive be structured? In other words, what formula should be used, preferably complementing the existing abatement structure?

## Attainable Savings

Are energy improvements readily possible to reach the county's goals? Is unusual architecture or technology required to reach these goals?

We evaluated the three case study buildings, all real buildings either already-built or under construction. We began with a baseline energy utilization index (EUI) that roughly matches the forthcoming new commercial energy code (October 2016), for each building type. We then allocated energy use to cooling, heating, lighting and other, hot water, and kitchen uses, according to published estimates for these three types of buildings. We then estimated energy savings for a variety of improvements, including:

- Heating system efficiency
- Heating distribution efficiency
- Heating system *type*. For example, some types of heating systems use more energy than other types of heating systems, in specific types of buildings. Geothermal heat pumps are regarded as the most efficient type of heating system, also provide efficient cooling, and work well with solar photovoltaic systems because they use electricity and not a fossil fuel. Air source heat pumps are another option with similar benefits. A common heat pump system that is not always efficient is the "boiler/tower water loop heat pump", and the use of this type of heat pump system should be discouraged in buildings that do not have large interior cores. Through wall heating systems, such as PTACs, have been found to introduce air leakage, and should be discouraged. These are just a few examples of options and issues in selection of the heating system *type*.
- Cooling system efficiency
- Heating and cooling controls
- Lighting type
- Lighting design/layout. Lighting energy depends not only on the type of fixture, but if the layout is efficient
- Lighting controls
- Window-to-wall ratio. We assumed reducing the window area from 36% window-to-wall ratio to an efficient 20%, sufficient to meet accepted green standards for acceptable views.
- Efficient building shape

- Solar photovoltaic
- Insulation
- Reduced Infiltration
- Efficient elevators.
- Hot water heating
- Hot water distribution
- Plug loads

The improvements evaluated were not intended to be exhaustive. For example, we did not evaluate commercial kitchen improvements (cooking and refrigeration) for the hotel, and a variety of other standard improvements, such as energy recovery ventilation, demand-controlled ventilation, efficient motors and drives, and laundry, among others.

With these sixteen improvements, we are able to get into the range of the target energy use of 70% less than the average existing building of the same type, per the goals of the Architecture 2030 standard, for the three case studies. For the multifamily building, we exceeded the energy goal, for the hotel and the office building, we fell slightly short.

Conclusions from the exercise include:

- A wide variety of energy improvements are needed to reach the goal. One or two large improvements (for example, solar energy system alone, or high-efficiency boiler alone, or thick wall insulation alone, etc.) will not allow a building to reach the goal.
- Most energy improvements are highly standard, do not impact the building architecture or aesthetics, and will not present any challenges to designers or contractors. These include high-efficiency heating, heating distribution system efficiency improvements, high-efficiency cooling, added insulation, high-efficiency hot water heating, and lighting improvements, among others.
- Some energy improvements may be new to architects, developers, contractors, building occupants, building inspectors, and other stake-holders. These include reduced window-to-wall ratio, more efficient building shape (although we recognize that optimal buildings shapes are often limited by the site size and building functionality), solar energy systems, and reduced infiltration. In particular, reduced infiltration requires attention to air-sealing details (floor-to-wall interface, wall details, shaft details, infiltration testing) that might be new to most builders and building inspectors, even though they are well-proven best practices in high-performance buildings.

### What Energy Savings Do Different Rating Systems Deliver?

We evaluated potential energy savings for different rating systems. Our scoping analysis found:

Building type	Energy Utilization Index (EUI)		
	Hotel	Multifamily	Office
Baseline - current building stock	104	78	110
Architecture 2030 target	31	24	33
2016 Energy Code	88	44	72
EPA ENERGY STAR	81	66	81
LEED (16 energy points)	50	24	44
40% Less Than 2016 Energy Code	53	26	43
40% Less Than 2016 Energy Code plus ENERGY STAR appliances, restaurant equipment, commercial laundry	31	23	33
Passivhaus (approximate)	23	23	23
Zero Energy Building	0	0	0

The 2016 Energy Code and EPA Energy Star clearly do not deliver savings anywhere close to the Architecture 2030 target. At the other end of the scale, Passivhaus, a very high-performance standard, likely will deliver the required energy savings, as obviously does a building designed to zero energy building standards.

A highly efficient LEED building (minimum of 16 LEED energy points, on a scale from 1-18), does meet the goal for multifamily buildings, comes close for office buildings, and falls farther short for hotels, likely due to the commercial cooking equipment in a typical hotel restaurant.

A building designed to NYSERDA’s “Deep Energy Savings” standard for commercial buildings (PON 1601Rev, 40% better than ASHRAE 90.1-2013) is fairly similar to a very efficient LEED building.

By adding requirements that appliances be ENERGY STAR rated, we are able to reach the goals of Architecture 2030.

### Incremental Cost

How much more will an efficient building cost? We roughly estimate the added (incremental) cost at between \$7 and \$21/SF, averaging \$15/SF, or a 9% premium on a building that costs \$160/SF. This estimate is in line with other estimates for the added cost of high-performance buildings. And, again, \$160/SF for construction cost and \$15/SF for the added incremental cost to deliver a highly-efficient building are “scoping estimates”, necessarily rough and likely to vary with building type, location, and economic conditions over time.

It should be noted that we did not subtract construction cost for improvements that save both energy and construction cost, such as lower window-to-wall ratio, smaller heating systems, and simpler buildings shapes. However, evidence is strong that high-performance buildings that use these strategies can meet energy efficiency goals while offsetting some of the added costs of energy improvements that do add to construction cost.

### Return on Investment

We estimate annual energy cost savings of \$0.60/SF, on average. Energy cost savings are lower than they have been in years, due to the low cost of natural gas. Our own prior study showed savings over \$1.50/SF for a building in NY City, where energy costs are higher.

At \$15/SF construction cost premium, for savings of \$0.60/SF, the simple payback is 25 years, and the return on investment is 4%.

For developers participating in NYSERDA's New Construction program, we anticipate incentives of approximately \$2.50/SF, reducing the incremental cost to \$12.50/SF. To bring the cost to the developer into a range where we believe the rewards to the developer are worthwhile, we believe the payback needs to be 5 years. To meet this criterion, the value of the tax abatement would need to be \$9.50/SF, and the developer's contribution would be \$3/SF. We must recognize the risks the developer is taking on: Added cost up front, no guarantee of the magnitude of the energy savings, no guarantee of the magnitude of the added hard and soft costs, and added work for the developer to coordinate and manage the added work/investment required.

By way of comparison, the current tax abatements on a 7-year schedule are estimated to represent approximately \$19/SF, in current dollars, for an average property tax rate of \$33 per \$1000 of assessed property value, and \$160/SF increased assessment. Comparing a proposed \$9.50/SF proposed tax abatement to the current \$19/SF, in other words, the abatement would be increased by about 50%. It should be emphasized that, whereas \$9.50/SF was used for developing the abatement schedule, the actual delivered abatement will vary, depending on the assessment and the local property tax rate.

### Incentive Structure

The current 7-year abatement schedule is:

Year	Abatement
1	90%
2	77%
3	64%
4	51%
5	39%
6	26%
7	13%

We first examined an incentive structure that follows the current tax abatement structure, simply raising the slope of the declining line by adding a fixed percentage to each year, cumulatively increasing this each year. We were able to deliver the sought added abatement by adding 6.5% to the year 1 abatement, making it 96.5%, then adding 13% to year 2, adding 19.5% to year 3, and so forth. However, this ended up with 58.5% in the final year (Year 7), and feedback from developers was that the drop-off from Year 7 to post-abatements (Year 8) was too steep.

So, instead, we propose a schedule that begins at 100% for the first three years, and then drops off to end up lower at Year 7:

Year	Abatement
1	100.0%
2	100.0%
3	100.0%
4	90.0%
5	70.0%
6	50.0%
7	30.0%

For an example 70,000 SF building, with a tax rate of \$33 per \$1000 of assessment, assuming an assessed value of \$160 per SF, the added abatement amounts to approximately \$9.50/SF, in constant dollars. The base abatements would be approximately \$1.33 million, the enhanced abatement would be approximately \$2 million, and the difference (added abatement) is approximately \$670,000. In areas of the county with higher tax rates, such as the City of Ithaca, this approach would generate a higher tax abatement, which seems appropriate, due to the likely higher cost of construction in this area.

For a 10-year abatement, the current schedule is:

Year	Abatement
1	100%
2	90%
3	80%
4	70%
5	60%
6	50%
7	40%
8	30%
9	20%
10	10%

In order to generate an added abatement equal to \$9.50/SF, we propose the following schedule:

Year	Abatement
1	100.0%
2	100.0%
3	100.0%
4	90.0%
5	90.0%
6	90.0%
7	70.0%
8	50.0%
9	30.0%
10	10.0%

### Reality Check: Two New Local Buildings

Two new local buildings with low energy designs were examined, to evaluate their energy performance and construction cost.

#### **EcoVillage TREE Common House**

The 20,000 square foot EcoVillage TREE common house is a four-story apartment and community building, with 15 apartments, and common areas mostly on the first floor. The apartments are typical in size: There are 2 studio apartments (450 sq. feet each), 6 one BR (690 sq. ft each), and 7 two-three BR (1150 sq. ft. each). Despite being located in the ecologically-minded EcoVillage community, the building is traditional in many ways: It has an attractive exterior including amenities such as balconies, has a full sprinkler system, has both elevator and stairways, and, in addition to the apartments, has a kitchen and dining room on the first floor, a children’s play area, a multi-purpose room, a laundry room, three bathrooms (in addition to one in each apartment), a sitting room, and two guest rooms. It is fully accessible on all floors. Significantly, the building serves as a community building not only for the residents of the 15 apartments located in the building, but also for 25 additional houses in the neighborhood. So, for example, laundry energy use is not just for 15 apartments but rather for 40, use of the kitchen and dining room are not just for 15 apartments but rather for 40, etc.

The common house has wall cavities filled with dense packed cellulose (R=20). Exterior walls are sheathed with the Zip System (waterproof OSB panels with seams taped). It also has two inches of solid Polyisocyanurate panels (R=14) on top of the sheathing, with metal/fiber-cement siding on top of purlins. Overall insulation in exterior walls is rated at R=34. Thick insulation is placed entirely under the foundation slab. The heating system is electric baseboard. Lighting is 72% LED and 28% compact fluorescent lamps (CFL). Ventilation is provided separate from heating, with a heat recovery ventilation system running continuously. Attention was directed to air-sealing during construction. All appliances are ENERGY STAR rated. Domestic hot water is provided by a solar thermal system, backed up by electric resistance heat. A 50 kW solar photovoltaic system provides electricity. The building was originally going to seek the Passivhaus certification, but EcoVillage decided against Passivhaus due to the added cost of air sealing.

The EcoVillage building has been occupied since late 2015. Although we do not have a full year of energy bills, we do have bills (and solar PV production) spanning both winter and spring months, which allow us to extrapolate to a year's energy use. We estimate the annual energy use, taking credit for the solar PV production, to be 9 kBtu/SF/year. This is far lower than the current average of 78 kBtu/SF/year for the existing stock of multifamily buildings in our climate, and also far lower than the Architecture 2030 goal of 24 kBtu/SF/year for a multistory multifamily building.

The building takes advantage of several common approaches to deliver low energy use at affordable construction cost: There is no basement (slab-on-grade), it has a modest window-to-wall ratio (approximately 16%), complex shapes are avoided (such as cantilevers, exposed lower roofs, un-needed corners, etc.), and low-cost electric resistance heat is used.

The final sale price for the apartments, inclusive of everything (except carports or special added amenities) is an affordable \$102,000 to \$257,000.

The final construction cost of the TREE common house building was \$2,475,000 (rounded to the closest thousand dollars). This cost includes the entire building (foundation, structural, interior finishes, siding, mechanical, electrical including the service/distribution/lighting, plumbing, stairs, elevator, insulation and soundproofing, the common kitchen, doors and windows, sprinkler system, and permits). This construction cost represents \$123.75/SF.

This cost is unusually low, and indicates that a high-quality building with extremely low energy use can be built affordably. The construction cost is even lower than an authoritative estimate (RS Means) for the average cost of multifamily buildings, of \$130.78/SF.

Both of these square-foot costs (the EcoVillage actual costs and the RS Means estimate) do not include the following:

- soft costs (including architectural drawings and corrections, energy and legal consultants, etc.)
- construction management
- site prep
- infrastructure (such as water delivery/pump house)
- inspections
- insurance and taxes during construction
- options that people added to their particular apartments

Assuming 30% for the above costs (a rough estimate), we estimate a total cost of \$3,217,500, for a total construction cost of \$161/SF for the EcoVillage building.

## **HOLT Office**

The 7225 square foot HOLT office is a recent single-story downtown gut rehab. HOLT set a goal for the building to be net-zero energy. Net-zero energy means that it intends to produce as much energy on-site (using a solar photovoltaic system) as it uses, on an annual basis.

The building re-used an existing structure. The walls have a fairly typical R-value of 14, and the roof has a better-than-code R-value of 40. The heating and cooling is provided by a high-efficiency air-source

heat pump system. Lighting is a mix of high-efficiency LED and fluorescent (T5 and T8). Ventilation is provided separate from heating and cooling, with an energy recovery ventilation system, further controlled for energy-efficiency to only run when needed (“demand control”). Domestic hot water is provided by an electric resistance storage water heater. A 60.5 kW solar photovoltaic system provides electricity.

The HOLT office has only been occupied since the spring of 2016. Sufficient utility bills for meaningful analysis are not yet available.

The building takes advantage of several common approaches to deliver low energy use at affordable construction cost: It re-uses an existing structure, it has a modest window-to-wall ratio (approximately 18%), and a low-cost electric water heater is used.

The final construction cost of the HOLT building was reported to be \$990,000, or approximately \$137/SF, with detail regarding infrastructure and soft costs not available.

The estimated added costs and energy savings of the energy conservation improvements was reported as part of the planning for the improvements.

Improvement	Energy Savings (kBtu/SF/year)	Added Construction Cost (\$)
Insulation	0.49	6387
Energy Recovery Ventilation	0.61	3275
Demand Controlled Ventilation	1.53	2000
High-efficiency air-source heat pump	9.29	22542
Lighting	2.56	2200
Total	14.5	36404
Per SF	14.5	4.85

In addition, the solar system reportedly cost \$99,250, or \$13.74/SF, presumably before the 30% investment tax credit. Soft costs (energy modeling, added design costs) are estimated to bring the total added project cost to \$21.87/SF. NYSERDA incentives are estimated to reduce this by \$2.26, to end up with a net added cost of \$19.61/SF, again, presumably before the 30% tax credit for the solar installation.

HOLT’s approach was different than that of the EcoVillage building. It takes advantage of its large roof area to install a large solar photovoltaic system, to complement a smaller set of energy conservation improvements. By contrast, EcoVillage chose a larger set of energy conservation improvements, and a smaller solar photovoltaic system, relative to the building size. However, it is also interesting to note that both buildings use added insulation, high-efficiency ventilation, high-efficiency lighting, a modest window-to-wall ratio, an efficient building shape, and a solar photovoltaic system among their core energy improvements.

## Task 3 – Develop Method/Rating System and Measurement System

### Possible Rating Systems

A variety of possible rating system approaches were evaluated, for the proposed green energy incentives:

1. **A specific target for a building's actual use** (measured), in an Energy Utilization Index (EUI, in units of kBtu/SF/year). The benefits to this approach are that actual energy reductions are promised, and so compliance with the Architecture 2030 program and county goals are assured and, if not, then tax incentives are withheld. Disadvantages to this approach include high risks for developers, and so a likelihood that they will choose not to participate.
2. **Per cent reduction from a baseline**, usually a baseline established by one of the versions of ASHRAE Standard 90.1. This is a widely-used approach, and is the one taken by LEED, by the energy code (whole-building compliance path), and by NYSERDA's New Construction program. Disadvantages are that actual energy usage is not guaranteed. Also, the baseline sometimes changes, as codes and standards change.
3. **Simpler modeling approaches**: A newer approach is another modeling method, called the ASHRAE Building Energy Quotient (BEQ), which does not require a baseline model (and so is not subject to a changing baseline). It is reportedly simpler than the ASHRAE Standard 90.1 model approach. However, it is newer, and so is less tested. It also is a different approach than the one used by NYSERDA, and so if a developer wishes to seek both proposed green energy incentives *and* NYSERDA incentives, it means creating two different energy models. In some ways, Passivhaus is similar. Passivhaus requires a simpler model, and no baseline model, but requires some on-site testing (to guarantee low infiltration), and has other special requirements, such as the use of heat recovery ventilation.

We decided to eliminate actual energy use (option #1 above) from consideration for this program, because actual energy use can only be measured in the year following occupancy of a building, and developers need the certainty of knowing what incentives are being offered, up front.

A broad comparison of the remaining approaches is shown below.

Standard	Pros	Cons	Cost
ASHRAE 90.1	Also use for energy code, NYSERDA, LEED, etc.	Model cost, complexity	\$\$
LEED	Recognized	Cost, non-energy aspects may not be needed	\$\$\$
Passivhaus	Recognized	More than needed? Not very standard	\$\$
ASHRAE BEQ	Simplicity, affordability	New, not used for much else	\$
All above	Flexibility		\$-\$\$\$

### Recommended Rating System

We decided to recommend allowing developers the flexibility of using any of the above methods, any/all of which we believe will meet the county’s energy conservation goals.

Our detailed recommendations are provided in Appendix B, in contract-ready language.

It should be noted that among the recommended options, only ASHRAE BEQ comes close to modeling usage that is similar to the Architecture 2030 target, in units of the Energy Utilization Index (EUI, kBtu/SF/year, relative to an existing-stock baseline). For the other methods, and specifically for the ASHRAE 90.1 method which we believe is most likely to be used, the model leaves behind discussions of EUI, and EUI will only then again come into play in the measurement of actual building energy use, as provided by the benchmarking (reporting of actual energy use) to be required of the developer over the duration of the incentives. However, most of these methods do account for sector-specific characteristics, such as differing energy characteristics among hotels, apartments, offices, and other building types. The one exception is Passivhaus, which takes as a goal an absolute energy-per-unit-area approach, regardless of building type.

It should also be noted that all four compliance paths involve independent third party verification. The TCIDA will not need to review detailed energy calculations or reports. The TCIDA will simply need to receive the independent third party certification. We do provide an option for a developer to propose their own compliance path, and presume this might be an energy model, but in this case the developer might need to pay for independent third party review of the submission.

### Measurement and Verification

Measurement and verification is widely performed according to the International Performance Measurement and Verification Protocol (IPMVP). The IPMVP allows for several methods, including on-site measurement, whole-building energy data, and simulation if energy bills are missing. The most applicable method for this program is IPMVP Option C – Whole Building. We recommend implementing

it by requiring developers to enter their utility bills in an online energy database developed and maintained by the U.S. EPA, called Portfolio Manager, or any one of the commercial interfaces to this database. This database is widely used, and will likely end up being a useful tool for the developer, to track and monitor energy use, for purposes such as identifying changes in energy use, spikes in energy use, and tracking savings from building improvements over time.

## Timing

The proposed timing of the program is as follows:

1. To qualify for the energy incentive, a developer needs to commit in writing to the goals of the program and needs to choose which rating system they plan to use. Developers are encouraged to consult with a qualified energy professional as early as possible in design, because early decisions are typically found to minimize construction costs and optimize cost effectiveness.
2. Within 12 months of the issuance of the certificate of occupancy, the developer will have set up the building in EPA Portfolio Manager and entered the first year's energy usage, and provided online access to the TCIDA. Energy usage will be entered at a maximum quarterly thereafter, for the duration of the energy incentives. Each year, within one month of the anniversary of the certificate of occupancy, the developer shall submit a hard copy printout of energy use, from EPA Portfolio Manager, for the duration of the energy incentives. This reporting is for informational purposes only, and shall not affect the energy incentives.
3. Within 18 months of the issuance of the certificate of occupancy, the developer must submit relevant third-party certification at the target level of building energy efficiency, and results of on-site inspections, if required for the certification.

## Does the Proposed Method Meet Our Stated Programmatic Goals?

At the beginning of this report, we outlined characteristics of a successful program. Does the proposed method have these characteristics?

We believe that the proposed approach is cost-effective, by allowing leveraging of state (NYSERDA) incentives, and allowing leveraging of the associated state-defined compliance/standards program, along with its substantial subsidies of soft costs, use of widely-accepted existing standards, and use of existing review and quality control. Incentives to "free riders" (those who would have designed/built efficiently anyway, without incentives) are estimated to be zero. We believe the proposed approach will have a ripple effect, in affecting future building design and construction decisions, by both incentives-receiving developers and other developers. This "spillover" might occur through lessons learned, best practices developed and shared, and more.

Projects supported by the proposed incentives should furthermore serve as a demonstrations/examples for other developers. The proposed approach is simple to administer – all compliance is verified by independent third parties. Measurement and verification is performed by the developer themselves, using the simple and widely-used online utility bill database, EPA Portfolio Manager. The proposed approach should have a measurable effect. The proposed energy savings are so substantial that they should be measurable in energy bills, without any special on-site measurement. The proposed

approach is not easily gamed. Developers should not be able to obtain incentives without substantially delivering the goals of energy efficiency, through “model-tweaking”, gaming of measurement, or other means of either unfair gaming (cheating) or “rules-bending”. All compliance methods use industry-standard protocols and third-party quality control. We believe the proposed approach will achieve the county’s goals of substantial energy conservation and economic development.

The proposed approach is easily changed/calibrated to changing market conditions. For example, if energy costs rise (or if a federal or state carbon tax is implemented, essentially raising the effective price of energy), and so the built-in incentive to conserve energy goes up, it might be desirable to reduce the incentives. Conversely, if energy prices drop, there may be a need to raise the incentives. The proposed approach is fair in that it does not confer a preference to one technology (e.g. it is technology-neutral) or building sector.

We believe the proposed approach will be acceptable to the community, including stakeholders such as the community at large, the TCIDA, county legislature, TCAD, and others, because it is based on generally-accepted energy practices, widely in use across the country. And, because it is based on generally-accepted energy practices, we believe it is defensible, in other words it will be justifiable in the face of possible community or legal challenges. The proposed approach accounts for differences in energy use between different building sectors. And the proposed approach offers the promise of persistence of savings, for example by encouraging best practices, such as the ongoing use of EPA’s Portfolio Manager to track energy use. The one characteristic that we opted to not include was increasing incentives for buildings that go beyond the requirements of the program and so propose to save more energy. For simplicity, we are recommending a single threshold and associated incentive.

## Other

### **The Split Incentive**

The *split incentive* refers to the challenge of saving energy when one party owns a building and its energy infrastructure and another party uses the building and pays some or all of the energy bills. In commercial buildings, the split incentive is recognized as a major impediment to energy savings. In the three buildings we examined in our case studies, two of three are master-metered: The building owner will pay all energy costs. In the last of the three, the building tenants will be individually-metered. As we consider green energy incentives, we need to recognize that the developer will not always see a direct correlation between investment in energy improvements and their own operating costs. An energy-efficient building can obviously be presented as an asset to tenants or potential tenants but, again, there is not always a direct correlation between investment and recoupment from energy cost savings. A solution to the split incentives problem may be necessary for an abatement incentive to be fully effective.

### **Methodology**

Calculations for this project assumed energy prices of 10 cents/kWh for electricity and \$0.66/therm for natural gas. The natural gas rate is NYSERDA's most recently reported statewide average rate. The electricity rate is more typical of commercial rates in Tompkins County, and is lower than NYSERDA's most recently reported statewide average of 13.1 cents/kWh, because the statewide average is skewed by higher rates in New York City.

It should be noted that industrial customers are frequently eligible for lower electricity rates. Lower electricity rates means that energy improvements take longer to justify themselves, and so there is less motivation for the building owner to make energy conservation investments.

It should also be noted that energy costs have been coming down in recent years. For example, average electricity costs were 2% lower in 2015 than they were in 2007. The decrease in natural gas costs are even more dramatic, with a reduction of 44% since 2007. These low energy costs are a major obstacle to energy conservation, with a far reduced financial incentive to conserve energy.

The accuracy of the estimates in this report are dependent on many factors. As mentioned, energy costs change over time, and can even go down, reducing energy cost savings. Construction costs vary widely, by building type, depending on economic conditions, and depending on where in the county a building is being built. Energy savings can depend on many factors, including behavioral factors, quality of construction, quality of materials, and more.

Energy savings estimates were done on a rule-of-thumb basis. For example, estimated heating use for each of three sample building types (hotel, medium-rise apartment building, large office building) was estimated on an EUI basis (kBtu/SF/year), and the savings were further estimated by applying a typical high-efficiency heating system relative to a heating system that meets the state energy conservation code (the version that goes into effect in October 2016). For the proposed new equipment, we did not assume the absolute maximum possible energy efficiency, but rather widely commercially available high-efficiency equipment. For example, for the heating system, we assumed a 90% efficient system, even though equipment is available as high as 95% efficient. Energy savings estimates were not done on the basis of detailed energy models, but rather as simple spreadsheet calculations.

Many of the energy savings represented in these estimates are highly predictable and will reliably deliver savings. For example, a high-efficiency heating system should reliably deliver energy savings relative to a standard-efficiency system. There are low risks of savings not being delivered for these improvements, risks that arise if engineering design is not done well, or if deficiencies arise during installation or commissioning of equipment. Furthermore, for other energy improvements, energy savings depend more strongly on broad assumptions about how equipment is used, and so can more easily vary from the predicted energy use. For example, for lighting, we need to make assumptions about how many hours per year the lighting is used, and these assumptions can differ strongly from what actually happens in a building.

It is important to note that the estimates of energy savings of a variety of possible energy improvements were primarily done in order to see if the goals of Architecture 2030 can be met, and not to require specific energy improvements. We then evaluated different rating systems to see if they could roughly deliver the sought energy savings. Because equivalence between different ratings systems is difficult to know definitively, and because it is impossible to control behavior in specific buildings, we will not know

definitively if the energy savings will be delivered. This is the purpose of the energy reporting, to allow the TCIDA to assess the success of the program.

In summary, the number of variables affecting the results in this study are necessarily many, the assumptions are many, and the accuracy is necessarily extremely rough. It would be possible for the energy improvements to cost as much as 50% more than what we estimated, or even higher. It would be possible for the energy cost savings to be half what we estimated, or even lower, especially if energy costs continue to go down. The return on investment could easily be significantly lower than projected. Conversely, if energy costs go up, or economic conditions reduce construction costs, the return on investment could be higher. These uncertainties support beginning this program with stronger incentives, to assure participation. If participation is found to be solid, the incentives can be adjusted downward over time. One or two pilot projects might be considered, to test and refine the approach.

## Conclusion

The proposed TCIDA program has the potential to achieve several goals:

1. Substantially reduce carbon emissions in large new buildings.
2. Assess a method to substantially reduce carbon emissions.
3. Serve as a role model for other new buildings.
4. Allow developers to gain experience with high-efficiency construction, which will increasingly be expected through increasingly-stringent buildings codes.
5. Over the long run, reduce operating costs for developers and potentially reduce rents for tenants.

## Appendix A: Interview Questions Posed to Developers

### Current Thinking and Practices

#### Purpose:

1. Understand how they think now, and organize their portfolio and new projects now, around energy consumption and energy efficiency.
2. Learn if they currently design for better than the Code/Generally Accepted Practice of the time.
3. Discuss both their portfolio in general, and one or more buildings in more depth.
4. Identify any energy goals they aspire to with current and/or new projects.

Perhaps one or more certifications, maybe utility cost \$/SF annually, maybe an EUI target.

5. Do you know what EUI is? Do you estimate that for a project? Do you use Portfolio Manager (which calculates EUI) today with your current buildings?

#### Financials

1. Let's consider specific projects (name the buildings with permission):
  - A recently completed building in Tompkins County \_\_\_\_\_
  - A future building you are planning \_\_\_\_\_

For each, ask **Yes/No questions** –

Did or will you:

- a. Get the federal "179d" tax deduction for being a building that uses 50% less energy?
- b. Install solar?
- c. Participate in the NYSERDA "New Construction Program" and obtain high-performance incentives through that program?
- d. Participate in any other programs to obtain incentives for energy efficiency?
- e. Obtain an Energy Star Score, through Portfolio Manager?
- f. Obtain LEED certification? (If yes, at what level: Basic, Silver, Gold, Platinum)
- g. Participate in Architecture 2030?
- h. Obtain any other high-performance building certifications (Passivhaus, etc.)?
- i. Aim for NetZero?
- j. Simply meet current Energy Code?

1. When in the design process do you decide what energy target you're aiming for?
2. How does this compare to the timing on approval of TCIDA tax abatements?
3. What do you think of the idea of property tax abatements for energy efficiency?
4. What key metric do you use to evaluate the project's overall financials?

- b. Return on Investment
- c. Internal Rate of Return (comparison to discount rate; “competing investment” dynamic)
- d. Capitalization Rate (relates to Build-to-Sell developments and what the local market will bear)
- e. Other \_\_\_\_\_

5. What is your target ROI (or IRR, or other metric) in general for your projects?

6. Is the target ROI very similar for each project? Or is there a wide variation?

7. In your proforma (business plan); what did/do you budget for utility costs, ex \$/SF? Who will pay them (landlord or tenant or combination)?

8. What key metrics do you use to decide which energy efficiency/measures to adopt?

- a. Payback period
- b. \$/SF for utility cost
- c. \$/SF investment target
- d. Other \_\_\_\_\_
- e. None – I do not invest in energy efficiency beyond the energy code.

9. When/if considering energy efficiency, do you look at ROI on each potential measure?

For example do you evaluate separately from each other:

- Added insulation
- LED lighting
- Solar PV
- High efficient HVAC

OR Do you mostly roll-up measures into the overall project ROI?

10. Are you aware that certain energy efficiency improvements actually lower the cost of construction?

If yes, can you give an example.

If no, just note that . . .

Are there any other questions we should be asking, or points you would like to make to help us understand your viewpoints on energy, in your role as a developer?

Appendix B: Proposed Requirements

## **Proposed Requirements for Tompkins County IDA Green Energy Incentives**

### Minimum Program Requirements

In order to receive base-level tax abatements, developers shall:

- Enter all building energy bills into an online database for the duration of the tax abatements, using EPA Portfolio Manager or approved equivalent, and provide annual reports of Energy Utilization Index (EUI), as well as online access for the TCIDA to the EPA Portfolio Manager data.
- Achieve design at the minimum 10% better-than-baseline level. Compliance shall be achieved in any one of the following ways:
  - o Design major project components to be at a minimum 10% more energy-efficient than the current energy code, including: all insulation (wall, roof, foundation), window U-factors, heating plant efficiency, cooling plant efficiency, domestic hot water plant efficiency and lighting power density. For example, if the code requirement for wall insulation is R-20, the proposed design shall be at a minimum R-22. Lighting power density shall be done on a space-by-space basis (not whole-building method). The design drawings shall show each component's energy code requirement, and the proposed better-than-code energy requirement. In addition, the ratio of window to wall area shall not exceed 25%. In addition, all major plug equipment (for example, refrigerators in apartment buildings, cooking equipment in restaurants, etc.) shall be ENERGY STAR rated. In addition, all water fixtures shall meet the requirements of EPA's Water Sense program (faucets, shower heads); OR,
  - o Participate in NYSERDA's New Construction program, and obtain a written statement from the NYSERDA consultant that the project design is 10% better than the program's baseline (currently ASHRAE 90.1-2013); OR,
  - o Demonstrate a minimum 10% better-than-code in another way, subject to approval. For example, participate in NYSERDA's "stretch energy code" program (still under development as of the writing of this report).

### Enhanced Incentive Requirements

In addition to entering energy bills in EPA Portfolio Manager and providing an annual EUI report (see above), developers shall choose and commit to one of the following certifications:

- Achieve design at the 40% better-than-baseline level (ASHRAE 90.1-2013). Developers are encouraged to participate in the NYSERDA New Construction program, which has similar requirements, and which provides additional incentives; OR,
- Participate in the NYSERDA Multifamily New Construction program, and achieve design at the Tier 3 level; OR,
- LEED 4.0 certification, including a minimum of 17 points for Energy Optimization (46% less source energy than ASHRAE 90.1-2010). Onsite renewable energy may be substituted for energy conservation; OR,
- Passivhaus certification.

The TCIDA may accept other proposed approaches that meets the county's intended goal of Architecture 2030 (70% savings for projects before 2020), and that includes independent third-party verification. The TCIDA reserves the right to refuse considering any such non-standard proposals.

Standards which might be considered in the future, but are considered not yet ready, include ASHRAE BEQ and the DOE Asset Tool.

Developers shall determine their target Energy Utilization Index (EUI) according to Architecture 2030, using EPA Target Finder, or approved equivalent. For mixed use buildings, the target shall be weighted by the different building uses, by floor area. The target EUI will only be used for purposes of comparison to subsequent actual EUI, from EPA Portfolio Manager, for purposes of measuring success of the program. The target and actual EUI will not be used for purposes of energy incentive calculation.

Within 18 months of the issuance of the certificate of occupancy, the developer shall submit relevant third-party certification at the target level, and results of on-site inspections. Third party certification shall be NYSERDA, USGBC/GBI, Passivhaus, ASHRAE, or otherwise approved organizations.

In addition, all major appliances, such as refrigerators, laundry equipment, and commercial cooking and refrigeration equipment, shall be ENERGY STAR rated. Developers shall put in their leases that: 1. Tenant appliances are recommended (but are not required) to be ENERGY STAR rated, such as computers, computer peripherals, and smaller consumer appliances. 2. Build-out spaces will comply with the energy goals of the program.

For industrial and lab energy-using equipment not covered by building energy efficiency requirements, all motors over 1 HP in size shall be NEMA Premium Efficiency, and shall be controlled by variable speed drives. In addition, the developer shall procure an independent evaluation of additional energy improvements, and implement those improvements that have a payback of less than 5 years. The independent evaluation shall be through NYSERDA's Industrial/Process program or approved equivalent.

The TCIDA green energy incentive offer will be made as a tax abatement schedule. The actual dollar amount of the abatement will depend on the property assessment and local property tax rate. TCIDA reserves the right to change the tax abatement schedule for future projects, depending on energy prices, changing government and utility energy incentives, changes to the energy code, developer participation rates, changing county energy goals, measured energy efficiency success rates, and other market forces.

## Appendix C: Schematic Design Guidelines

For schematic design, the following guidelines may help for planning purposes. These guidelines are not intended to guarantee compliance with the proposed green energy incentives.

- Select high-efficiency heating and cooling plants, with rated efficiencies at least 15-20% higher than required by the energy code.
- Select high-efficiency domestic hot water (DHW) plants, with rated efficiencies at least 15-20% higher than required by the energy code.
- Avoid placing heating and cooling distribution systems in unheated spaces, such as attics, basements, etc. Give preference to systems that have efficient distribution systems and low distribution losses (for example, room-by-room fan coils).
- Use energy recovery ventilation systems in air conditioned buildings, and heat recovery ventilation systems in buildings that do not have air conditioning. Design ventilation systems separate from heating and cooling systems.
- Select heating/cooling systems that allow thermal zoning on a space-by-space basis.
- Perform lighting design on a space-by-space basis, using the space-by-space lighting power density method (not the whole-building method). Use LED lighting where possible. Design to lighting power density of 15-20% less than required by the energy code.
- Require occupancy sensors where possible, for both indoor and outdoor lighting. Require short off-delay (1 minute or less), and commissioning of lighting controls.
- Design to window-to-wall ratio less than 20-25% (the new energy code requires 30% or less). Keep large windows on south-facing surfaces and important facades, minimize windows on north-facing surfaces and in spaces which see low occupancy (stairwells, corridors, utility rooms, etc.).
- Avoid unusually complex building shapes.
- Use 20-30% more insulation R-value than required by the energy code.
- Use best practices for minimizing infiltration and stack effect, and require inspection/commissioning of these elements: Vestibules at entrance doors, air sealing around window and door frames, aerosol duct sealing and sealing of chases/shafts, sealing at exterior wall/floor junctions, and guarded blower door testing of individual spaces or entire building floors.
- Require that water fixtures meet EPA's Water Sense requirements.
- Require that permanent appliances (apartment refrigerators, restaurant cooking equipment, etc.) be ENERGY STAR rated.
- Consider heat pump systems (geothermal or air source heat pumps), avoid boiler-assisted heat pump systems, avoid systems using fossil fuels.
- Design roofs to be "solar receptive": Maximize area available for solar collection systems. For pitched roofs, place roof-mounted components (plumbing vents, exhaust fans, etc.) on north-facing roof surfaces, to keep south-facing surfaces available for solar collection systems. Orient one roof surface to the south, plus/minus 30 degrees, to maximize potential for solar energy. Maximize solar collection systems on available roof areas, and consider using high-production solar panels to maximize solar production for a given roof area, especially for medium-rise and high-rise buildings.

# Tompkins County Industrial Development Agency

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## Enhanced Energy Incentive Policy

Adopted: March 11, 2020

Applicants for the Enhanced Energy Incentive must meet the eligible project criteria as defined in the Tompkins County Industrial Development Agency Uniform Tax Exemption Policy. Additionally, applicant projects must meet one of the following eligibility criteria:

- New construction,
- Additions 1,000 square feet or larger,
- A major renovation, in which over 75% of the space in a building is being renovated and in which two or more of the following major energy components are being substantially renovated: heating, lighting, and envelope.

Applicants shall comply with the requirements of the Ithaca Energy Code Supplement at the January 1, 2025 level. The Ithaca Energy Code Supplement offers two compliance paths for new building construction that result in projects that produce significantly less greenhouse gas emissions than New York State Building Code requires. The "Easy Path" emphasizes energy improvements that also reduce construction cost, as well as electrification of building energy systems. This is a point system; a building must meet a minimum of 12 points at the January 1, 2025 level. The second method of compliance is a "Whole Building Path" that allows more flexibility in building design. Buildings using the Whole Building Path must comply with any one of several recognized third party green building standards and use energy modeling to show compliance.

Building modeling shall follow ASHRAE Standard 90.1-2013 or the Energy Rating Index (ERI) method per the IECC residential energy requirements (latest edition used in New York State), with the exception that, for the baseline building, space heating shall be a gas boiler (for ASHRAE 90.1-2013 projects) or gas forced air (for ERI projects), and hot water heating shall be natural gas. Carbon emissions factors shall be per EPA eGRID 2018 (for electricity, use the "total output emission rates" column, use "NYUP" factor for CO<sub>2</sub>e).

Participants are encouraged to use NYSERDA new construction programs, such as the Commercial New Construction Program (CNCP), multifamily new construction program (low-rise or high-rise), to obtain additional NYSERDA incentives including payment of some or all of energy consultant fees as well as construction incentives, and to take advantage of energy modeling and technical consulting provided by these programs. Please note that the energy modeling required for the TCIDA incentives is identical to that required for the NYSERDA programs, with the exception of:

- a. Baseline building fuel use shall be natural gas for space heating and hot water.
- b. Additional calculation of carbon emissions and savings for total modeled baseline and design building energy use (see Compliance Report).

Applicants for the Enhanced Energy Incentive after January 1, 2024 must comply with requirements of the Ithaca Green Building Policy at the January 1, 2030 level (net-zero and fossil-fuel free).

# Tompkins County Industrial Development Agency

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## Enhanced Energy Incentive Levels

### Enhanced Energy Small Project (<\$2 million assessment increase)

Standard		CIITAP Financial Need	
Year	Abatement	Year	Abatement
1	100%	1	100%
2	100%	2	100%
3	100%	3	100%
4	100%	4	100%
5	85%	5	90%
6	70%	6	81%
7	55%	7	71%
		8	62%
		9	52%
		10	43%

### Enhanced Energy Large Non-Residential Project (>\$2 million assessment increase)

Standard		CIITAP Financial Need	
Year	Abatement	Year	Abatement
1	100%	1	100%
2	100%	2	100%
3	100%	3	100%
4	90%	4	90%
5	70%	5	81%
6	50%	6	71%
7	30%	7	62%
		8	52%
		9	43%
		10	33%

### Enhanced Energy Large Multi-Family Project (>\$2 million assessment increase)

Standard		CIITAP Financial Need	
Year	Abatement	Year	Abatement
1	100%	1	100%
2	100%	2	100%
3	80%	3	90%
4	65%	4	80%
5	50%	5	70%
6	35%	6	60%
7	20%	7	60%
		8	50%
		9	40%
		10	30%

## Compliance

A design professional licensed in New York State (Professional Engineer or Registered Architect) shall sign and stamp the Compliance Report.

# Tompkins County Industrial Development Agency

## Energy Incentives Compliance Report

I am a licensed design professional in New York State and I affirm that the design of \_\_\_\_\_ (building address) conforms to the requirements of the Tompkins County IDA Enhanced Energy Incentives Policy.

Check one:

\_\_\_\_\_ Whole Building Carbon Reduction Method

Projected energy use and carbon emissions:

	Baseline Building	Design Building
Electricity use (kWh/year), after renewable energy is subtracted		
Gas use (therms/year)		
Other energy use (MMBTU/year) Fuel: _____		
Greenhouse Gas Emissions (lb CO2/year)		

Projected reduction in greenhouse gas emissions: \_\_\_\_\_ %  
(Minimum 80% until 12/31/2024, minimum 100% on or after 1/1/2025).

Energy software: \_\_\_\_\_ Please attach reports of inputs and outputs.

Or:

\_\_\_\_\_ Easy Path (Point Method). List points achieved (minimum 12): e.g. EE1 (3), EE2 (1), etc.  
(See Ithaca Energy Code Supplement for definitions). This option can only be used until 12/31/2024.

\_\_\_\_\_

\_\_\_\_\_

Total points: \_\_\_\_\_ (minimum 12)

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Company

\_\_\_\_\_  
Address

\_\_\_\_\_  
Phone

\_\_\_\_\_  
Email



Professional Stamp